

1972

EASTERN AREA CRUISE NO. 19
EASTROPAC
7 August-26 September 1967

By

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ITINERARY

7 August 0100 Depart Panama
11 August 0800 Arrive Salina Cruz
12 August 1400 Depart Salina Cruz
13 August 2300 Arrive Acapulco
16 August 1000 Depart Acapulco
26-27 August Rendezvous with R/V Thomas Washington and return to regular cruise track traveling along same course.
7 September 1100 Arrive Salina Cruz
14 September 0800 Depart Salina Cruz
27 September 0800 Arrive Panama

The second multiple ship oceanographic survey of the Eastern Tropical Pacific Ocean (EASTROPAC) was conducted during August and September 1967. During this period I observed pelagic birds, mammals, and fish from the flying bridge of the Research Vessel Undaunted, of the Miami Bureau of Commercial Fisheries Lab, while the ship was underway. Generally, observations ceased when the ship was stopped for oceanographic station work. In coastal areas with the ship continually underway, I watched only eight hours a day. This preliminary report summarizes my observations.

Diurnal observations were made for 359.1 hours while the ship traveled 3,323.3 miles. During this time 10,450 birds of 56 species were recorded. No nocturnal observations were made.

The cruise track (see FIGURE 1) has been divided into five areas to facilitate analysis: Area A- Panama to Acapulco along the coast; Area B- Acapulco to 5°S mainly along 105°W; Area C - 5°S 105°W to Salina Cruz mainly along 98°W; Area D - Salina Cruz to 5°27'S, 92°W mainly along 92°W; Area E - 5°27'S, 92°W to Panama. By no means do these areas represent ecological or oceanographical zones. Instead they are merely small units which make the data easier to handle at the moment. TABLES 1-8 summarize the observations for each one of these areas.

FIGURES 2-21 show the distribution and abundance of several species

and the abundance of flocks. In most cases these figures along with the tables are sufficient to explain my findings for a particular species on this trip. However, some information cannot be expressed in this manner which necessitates the following species accounts. Only those species with additional information are discussed in this section.

SPECIES ACCOUNTS

Waved Albatross (Diomedea irrorata)

This albatross was found only near the Galapagos. Murphy (Oceanic Birds of South America 1936) gives the impression that this species is seldom found north of Hood Island where they nest. However, 23 were observed in an area over 100 miles northwest of Hood Island.

Procellaria sp.

On 31 August I saw a large all dark procellarid at a distance. It impressed me as being larger than any member of this group that I had seen previously, but smaller than an albatross. At the time, I identified it as a member of this genus, possibly parkinsani which has been previously recorded in this general area. I am confident that it was not any of the other all dark procellarids which occur in this area - (all of which I have seen). However, since I never did get a close look at the bird the identification is highly tentative.

Wedge-tailed Shearwater (Puffinus pacificus)

Wedge-tails, mainly dark phase, were fairly common over a large portion of the study area (see FIGURE 5). In February and March light phase populations were found in the area. This indicates that there are two different populations utilizing the area at different times of the year. Since this species only nests on one island in the eastern Pacific, at least one of these population must come from an area to the west of the study area -

the light phase one from Hawaii or the dark phase population from the Line Islands or French Polynesia. This conclusion is inescapable. Further work will be necessary to tell which population is from an outside area or if in fact both populations are from the west with the eastern Pacific birds intermingled with these populations.

Juan Fernandez Petrel (Pterodroma e. externa)

Juan Fernandez Petrels were common only along 105°W. Earlier in the summer Gould found them commonly along the 98°W meridian suggesting a westward movement in August. This could correspond with the increase of this species in the central Pacific during late summer. It should be remembered that at the same time they are common in the eastern Pacific (August) they are also common in the central Pacific - a range of over 2000 miles.

Collared Petrel (Pterodroma leucoptera brevipes)

Collared Petrels are easily separated from other forms of small Pterodroma by the dark underwing border and black cap which extends down the neck.

Hydrobatidae

In the past, identification of the dark storm petrels with white rumps has been difficult. This is due in part to the fact that on most trips only one species is seen, namely Leach's Storm Petrel.

On this trip most of the species of this group were observed, and after watching them in the field and checking study skins I feel that I can identify a good many individuals in the field by size and plumage characteristics. The following is my identification key to the "white-rumped" storm petrels of the central and eastern Pacific.

I. Size: Largest to smallest

Leach's - Oceanodroma leucorhoa

Harcourt's - Oceanodroma castro

Wilson's - Oceanites oceanicus

Galapagos' - Oceanodroma tethys

Graceful - Oceanites gracilis

Size is mainly when two species are seen together. However, the first three species are considerably larger than the last two and with a little practice one should be able to tell these two groups apart when only one bird is present.

II. Tail

A. 1. Forked

Leach's

2. vs. Slightly forked or not forked

Wilson's, Harcourt's, Graceful, Galapagos

B. Amount of white in tail vs. amount of black

1. Black much greater than white

Graceful Storm Petrel

2. White much greater than black

Galapagos Storm Petrel

These two species are separable from the other three by this character alone.

3. White and black about equal

Wilson's Storm Petrel

Harcourt's Storm Petrel

4. White slightly less than black, usually with black line through white rump

Leach's Storm Petrel

As far as this character goes, the last three species are very similar. It is necessary therefore to use the forked tail of the Leach's to distinguish it from the other two species.

Wilson's and Harcourt's Storm Petrels are the hardest two species to

separate since they basically agree on all characters mentioned above. However, they differ in length of the legs with the legs of a Wilson's generally extending beyond the tail when it flies. At other times it will dabble its long legs in the water.

Flight may also be a useful character but I did not see enough Oceanites to be sure how to tell them from Oceanodroma. However, I did see a flight difference between Leach's and Galapagos' Storm Petrels. Leach's flies like a small nighthawk with deep wing beats while tethys has a stiff wing beat due to the smaller wings of this species.

I can find no plumage or size characteristic to separate Black Storm Petrels from Markham's Storm Petrels in the field. The area of occurrence (Markham's in the colder water along the equator) and the ship following tendency of the Black Storm Petrel were used to identify these species in the field. They are both smaller than the Sooty Storm Petrel of the central Pacific and larger than dark-rumped Leach's from which they also differ in having a more deeply forked tail.

FIGURES 11-13 show the distribution of these Storm Petrels. It is likely that many of the unidentified Oceanodroma on the western two legs along the equator were Harcourt's which I overlooked at the time.

White-faced Storm Petrel (Pelagodroma marina)

This species was fairly common near the equator on the outer two legs but not found near the Galapagos. Competition with the resident storm petrels probably excludes it from this area.

In the region where they occurred, sea surface temperatures were less than 20°C which is possibly a limiting factor in the species. In early summer they were not found here when the temperatures were well above 20°C.

Blue-faced Booby (Sula dactylatra)

Red-footed Booby (Sula sula)

Adults of both these species were members of eastern Pacific populations

since the light phase Red-foots had dark tails (subspecies websteri) and the Blue-faces had orange-colored bills (subspecies granti).

Frigatebird (Fregata)

Adult female Magnificent Frigatebirds are easily distinguished from female Greats by the color of the throat -- black in the Magnificent, and gray in the Great. It is just as easy to distinguish between the adult males of these species at close range, for the male Magnificent has a light (blue) colored bill while the male Great Frigate has a dark (black) bill. This character should work 99 percent of the time. However, a male Great that has just molted into the adult plumage may retain the light colored bill of the subadult for a while.

Arctic Tern (Sterna paradisica)

In September Arctic Terns were commonly encountered far from land generally moving southeast, but at other times in feeding flocks. Even those traveling groups were seen feeding. Evidently the migration of this species is leisurely.

Sooty Tern (Sterna fuscata)

Sooty Terns were generally uncommon over the area (see FIGURE 16) being seen in numbers larger than a hundred on only four days.

Two populations were evidently present in the area - a pre-nesting one and a post-nesting one. Near the Galapagos the flocks observed contained no young birds and the adults were in fresh plumage indicating the start of nesting cycle in this island group. On two other days when fairly large numbers of Sooties were seen immatures were present. These birds are very likely from Clipperton Island.

On 2 September I saw a flock of eight adult Sooties sitting on the water. I have never before seen them on the water when immatures were not present also.

Brown-winged Tern (Sterna anaethetus)

Seven individuals of this species were observed along the coast. I separated them from Sooty Terns on the basis of smaller size, lighter back, and shallower wing beats. They also flew more like other terns with the bill pointed down.

MAMMALS

Four hundred and twenty-two mammals of ten species were seen as follows:

	<u>No.</u>	<u>Date</u>
Sea Lion	9	September 20

Unidentified Cetaceans

<u>No.</u>	<u>Date</u>
4	August 7
50	August 8
25	August 13
1	August 16
20	August 23
20	August 24
75	September 4
10	September 5
1	September 24

Spotted Dolphin (Stenella graffmani)

<u>No.</u>	<u>Date</u>
6	August 7
65	August 10
35	August 12
15	September 7

Bottled-nosed Dolphin (Tursiops)

<u>No.</u>	<u>Date</u>
14	September 15
27	September 26

False Killer Whale (Pseudorca crassidens)

<u>No.</u>	<u>Date</u>
2	August 9
1	September 2

Killer Whale (Orcinus orca)

<u>No.</u>	<u>Date</u>
4	September 19

Pilot Whale (Globicephala malaena)

<u>No.</u>	<u>Date</u>
20	September 4
14	September 26

Risso's Dolphin (Grampus griseus)

<u>No.</u>	<u>Date</u>
10	August 18

Pygmy Killer Whale? (Feresa attenuata)

<u>No.</u>	<u>Date</u>
50	September 25

Sperm Whale (Physeter catodon)

<u>No.</u>	<u>Date</u>
1	August 24
12	August 25
1	August 27
4	September 18

Little Piked Whale (Balaenoptera acutorostrata)

<u>No.</u>	<u>Date</u>
1	August 23

APPENDIX

Scientific Party

Dr. R. M. Laurs - Leader - B.C.F.

Mr. R. Lynn - B.C.F.

Mr. G. Kalin - B.C.F.

Mr. D. Justice - B.C.F.

Mr. W. Mauck - S.I.O.

Mr. D. Reith - S.I.O.

Mr. C. Worrall - S.I.O.

Mr. D. Rosendahl - S.I.O.

Mr. W. Cooley - S.I.O.

Mr. T. Parr - Student S.I.O.

Mr. T. Dana - Student S.I.O.

Mr. W. Rickhus - Student S.I.O.

Mr. E. Reyna - Mexican Biologist

Mr. P. Woodward - S.I.

B.C.F. - Bureau of Commercial Fisheries

S.I.O. - Scripps Institution of Oceanography

S.I. - Smithsonian Institution

Specimens Collected

White-faced Storm Petrel - 1

Barn Swallow - 1

Empidonax sp. - 1

TABLE 1. SUMMARY OF DAILY OBSERVATIONS

	A	B	C	D	E	TOTALS
No. Miles	536.1	1022.60	759.6	574.0	404.0	3323.3
No. Hours	48.7	121.05	85.45	64.64	39.25	359.09
No. Birds	2321.	1823.	1587.	3878.	841.	10450.
No. Flocks	51.	55.	37.	58.	27.	228.
Ave. No. Birds/Flock	32.8	16.71	25.38	55.53	20.85	31.92
Ave. No. Birds/Hours	11.01	15.06	18.57	599.99	21.43	29.1

TABLE 2. ABUNDANCE OF SPECIES GROUPS BY AREA

Species Group	A	B	C	D	E	Total	% of Total Population
Albatross	0	0	0	23	1	24	.3
Shearwater-Petrel	269	1347	591	1485	93	3785	36.3
Storm Petrel	696	205	279	150	125	1455	13.9
Tropicbird	5	7	6	4	2	24	.3
Pelican	15	0	0	0	0	15	.1
Booby	475	76	136	1446	180	2313	22.1
Frigatebird	62	20	60	37	118	297	2.8
Heron	1	0	0	1	0	2	<.1
Shorebird	251	114	128	91	82	666	6.3
Jaeger	4	15	17	7	9	52	.5
Gull	18	2	1	28	1	50	.4
Tern	517	34	366	601	224	1742	16.6
Landbird	8	3	3	5	6	25	.3
Totals	2321	1823	1587	3878	841	10450	100%

TABLE 3. ABUNDANCE OF SPECIES BY AREA

Species or Species Group	A	B	Area		D	E	Totals
			C				
Waved Albatross	0	0	0		23	1	24
<u>Procellaria</u>	0	0	1		0	0	1
Pale-footed Shearwater	0	0	1		0	0	1
Pink-footed Shearwater	4	0	0		17	7	28
Wedge-tailed Shearwater	29	226	471		28	27	781
Sooty Shearwater	1	1	0		0	0	2
Slender-billed Shearwater	0	0	1		0	0	1
Black-vented Shearwater	80	0	0		1352	0	1432
Manx Shearwater	124	33	19		1	0	177
Audubon's Shearwater	0	3	0		21	6	30
Dark-rumped Petrel	0	0	2		27	32	61
Juan Fernandez Petrel	0	871	20		0	0	891
Black-winged Petrel	0	3	0		0	0	3
Kermadec Petrel	0	14	16		9	1	40
Phoenix Petrel	0	6	0		0	0	6
Collared Petrel	0	88	25		1	0	114
Cape Petrel	0	0	0		0	4	4
Shearwater	3	0	0		0	1	4
Shearwater - Petrel	28	88	33		29	15	193
<u>Pterodroma</u>	0	14	2		0	0	16
Graceful Storm Petrel	0	0	0		20	0	20
White-faced Storm Petrel	0	22	14		0	0	36
Galapagos Storm Petrel	665	28	49		25	67	834
Harcourt's Storm Petrel	0	0	0		0	5	5
Leach's Storm Petrel	0	14	52		10	1	77
Leach's Type	0	58	34		0	1	93
Black Storm Petrel	26	7	15		23	12	83
Markham's Storm Petrel	0	3	16		12	19	50
Storm Petrel	3	41	0		3	19	66
<u>Oceanodroma</u>	2	32	99		57	1	191
Red-billed Tropicbird	4	4	5		4	2	19
Red-tailed Tropicbird	0	1	1		0	0	2
Tropicbird	1	2	0		0	0	3
Brown Pelican	15	0	0		0	0	15
Blue-footed Booby	1	0	0		149	0	150
Blue-faced Booby	21	13	32		184	103	353
Red-footed Booby	32	25	83		1060	46	1246
Brown Booby	402	34	1		0	21	458
Booby	19	4	20		53	10	106
Magnificent Frigatebird	20	1	0		12	6	39
Great Frigatebird	0	1	9		0	0	10
Frigatebird	42	18	51		25	112	248
Green Heron	0	0	0		1	0	1
Cattle Egret	1	0	0		0	0	1
Whimbrel	7	0	4		0	1	12
Willet	1	0	0		0	0	1
Shorebird	19	8	0		4	1	32
Red Phalarope	3	15	72		26	63	179
Northern Phalarope	115	31	0		2	0	148
Phalarope	106	60	52		59	17	294

Table 3 cont'd.

Species or Species Group	A	B	C	D	E	Totals
Pomarine Jaeger	1	3	1	2	5	12
Parasitic Jaeger	2	0	0	1	1	4
Long-tailed Jaeger	0	0	4	1	2	7
Skua	1	0	1	1	0	3
Jaeger	0	12	11	2	1	26
Laughing Gull	1	0	0	0	0	1
Sabine's Gull	17	2	0	0	0	19
Swallow-tailed Gull	0	0	1	28	1	30
Common Noddy	231	0	1	0	46	278
Black Tern	218	13	1	0	34	266
Common Tern	4	0	0	0	0	4
Arctic Tern	0	0	14	13	43	70
Sooty Tern	36	13	322	583	92	1046
Brown-winged Tern	3	4	0	0	0	7
Tern	25	4	28	5	9	71
Nighthawk	0	0	0	0	1	1
Empidonax	0	1	0	0	0	1
Barn Swallow	0	0	0	1	1	2
Cliff Swallow	0	0	0	1	0	1
Swallow	1	0	2	0	1	4
Prothonotary Warbler	0	0	0	1	0	1
Unidentified Passerines	0	0	0	1	2	3
Bird	7	2	1	1	1	12
Totals	2321	1823	1587	3878	841	10450

TABLE 4. SUMMARY OF AREA A

Species	August						September		Totals
	7	8	9	10	12	13	7	14	
Pink-footed Shearwater	0	4	0	0	0	0	0	0	4
Wedge-tailed Shearwater	0	5	2	0	0	0	0	20	27
Sooty Shearwater	0	0	0	1	0	0	0	0	1
Black-vented Shearwater	0	0	0	0	80	0	0	0	80
Manx Shearwater	1	8	0	4	0	51	0	60	124
Shearwater	0	1	2	0	0	0	0	0	3
Shearwater-Petrel	0	0	2	1	0	0	0	25	28
Galapagos Storm Petrel	63	560	39	0	0	0	0	0	662
Black Storm Petrel	12	6	1	1	0	4	2	0	26
Storm Petrel	2	1	0	0	0	0	0	0	3
Oceanodroma	0	0	0	0	0	0	0	2	2
Red-billed Tropicbird	0	1	3	0	0	0	0	0	4
Tropicbird	0	1	0	0	0	0	0	0	1
Brown Pelican	1	0	0	13	0	0	0	1	15
Blue-footed Booby	0	0	0	0	0	0	0	1	1
Blue-faced Booby	0	0	3	10	0	8	0	2	23
Red-footed Booby	0	0	1	2	1	28	0	0	32
Brown Booby	11	231	7	2	57	63	31	0	402
Booby	0	0	0	3	0	15	0	1	19
Magnificent Frigatebird	2	1	0	15	1	0	0	1	20
Frigatebird	4	3	0	26	3	0	2	4	42
Cattle Egret	1	0	0	0	0	0	0	0	1
Whimbrel	0	2	5	0	0	0	0	0	7
Willet	0	0	0	1	0	0	0	0	1
Shorebird	1	0	0	8	0	10	0	0	19
Red Phalarope	0	0	1	0	0	0	1	1	3
Northern Phalarope	5	6	0	11	2	17	0	74	115
Phalarope	0	3	0	46	8	22	5	22	106
Pomarine Jaeger	1	0	0	0	0	0	0	0	1
Parasitic Jaeger	0	0	0	0	0	2	0	0	2
Skua	0	0	0	0	0	1	0	0	1
Laughing Gull	0	0	0	0	0	0	1	0	1
Sabine's Gull	1	4	0	8	1	3	0	0	17
Common Noddy	107	124	0	0	0	0	0	0	231
Black Tern	13	6	0	0	134	46	15	4	218
Common Tern	0	0	0	1	0	3	0	0	4
Sooty Tern	0	0	0	0	0	0	0	36	36
Brown-winged Tern	1	0	0	2	0	0	0	0	3
Tern	10	5	0	5	2	3	0	3	28
Swallow	1	0	0	0	0	0	0	0	1
Bird	1	2	1	3	0	0	0	0	7
Totals	238	974	67	163	289	276	57	257	2321

Table 4 Summary of Area A cont'd.

	No. of Birds	No. of Sightings	No. of Species	No. of Birds In Flocks	No. of Birds Not In Flocks	No. of Flocks	No. of Hours	No. of Miles
<u>August</u>								
7	238	87	14	103	135	9	8.0	93.0
8	974	90	14	837	137	8	8.0	88.0
9	67	33	9	15	52	2	8.0	80.0
10	163	69	13	59	104	8	8.0	96.0
12	289	28	7	252	37	6	3.5	37.1
13	276	72	11	174	102	13	5.0	60.0
<u>September</u>								
7	57	29	6	7	50	1	3.2	32.0
14	257	37	11	199	58	4	5.0	50.0
Totals	2321	445	29	1646	695	51	48.7	536.1

FLOCK COMPOSITION

Species	No.	% of Species Population In Flocks	% of Total Birds In Flock	No. of Flocks Species Present In
Pink-footed Shearwater	2	50.0	.1	1
Wedge-tailed Shearwater	18	66.6	1.1	3
Manx (Black-vented) Shearwater	159	77.9	9.7	10
Shearwater/Petrel	25	89.2	1.5	1
Galapagos Storm Petrel	553	83.5	33.8	7
Brown Pelican	8	53.3	.4	1
Blue-faced Booby	5	21.7	.3	2
Red-footed Booby	18	56.2	1.1	4
Brown Booby	299	74.3	18.2	11
Booby	15	78.9	.9	2
Whimbrel	5	71.4	.3	1
Shorebird	17	89.4	1.0	2
Northern Phalarope	93	80.8	5.6	4
Phalarope	47	44.3	2.8	7
Sabine's Gull	9	52.9	.5	2
Common Noddy	177	76.6	10.8	11
Black Tern	161	73.8	9.8	6
Sooty Tern	32	88.8	1.9	2
Tern	3	10.7	.1	1
Totals	1646	-	100.0 %	

TABLE 5. SUMMARY OF AREA B

Species	16	17	18	19	20	21	22	23	24	25	26	27	28	Totals
Wedge-tailed Shearwater	0	6	86	62	49	22	0	1	0	0	0	0	0	226
Sooty Shearwater	0	0	0	1	0	0	0	0	0	0	0	0	0	1
Manx Shearwater	10	17	2	4	0	0	0	0	0	0	0	0	0	33
Audubon's Shearwater	0	0	0	0	1	1	0	0	1	0	0	0	0	3
Juan Fernandez Petrel	0	25	259	180	72	334	0	0	0	0	1	0	0	871
Black-winged Petrel	0	0	0	0	0	3	0	0	0	0	0	0	0	3
Kermadec Petrel	0	5	0	0	3	4	1	1	0	0	0	0	0	14
Phoenix Petrel	0	0	2	1	1	2	0	0	0	0	0	0	0	6
Collared Petrel	0	0	0	0	0	2	16	3	1	10	17	29	10	88
Shearwater Petrel	1	9	4	8	13	36	11	0	0	0	1	2	3	88
<u>Pterodroma</u>	0	0	0	0	0	0	3	0	1	1	7	1	1	14
White-faced Storm Petrel	0	0	0	0	0	0	0	1	2	3	1	1	14	22
Galapagos Storm Petrel	0	0	1	16	4	1	0	0	0	4	1	1	0	28
Leach's Storm Petrel	0	2	1	2	1	0	0	0	2	6	0	0	0	14
Leach's Type	0	21	0	0	1	0	6	0	14	6	0	1	9	58
Black Storm Petrel	1	0	0	5	1	0	0	0	0	0	0	0	0	7
Markham's Storm Petrel	0	0	0	0	0	0	1	0	1	1	0	0	0	3
Storm Petrel	1	0	18	3	9	0	2	1	7	0	6	0	0	47
<u>Oceanodroma</u>	2	0	0	0	0	0	0	0	0	20	0	1	3	26
Red-billed Tropicbird	0	2	2	0	0	0	0	0	0	0	0	0	0	4
Red-tailed Tropicbird	0	0	0	0	0	0	0	1	0	0	0	0	0	1
Tropicbird	0	1	1	0	0	0	0	0	0	0	0	0	0	2
Blue-faced Booby	0	10	2	0	1	0	0	0	0	0	0	0	0	13
Red-footed Booby	3	21	1	0	0	0	0	0	0	0	0	0	0	25
Brown Booby	28	4	0	1	0	1	0	0	0	0	0	0	0	34
Booby	3	1	0	0	0	0	0	0	0	0	0	0	0	4
Magnificent Frigatebird	0	0	0	0	0	1	0	0	0	0	0	0	0	1
Great Frigatebird	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Frigatebird	0	0	0	0	0	13	4	1	0	0	0	0	0	18
Shorebird	7	0	0	0	0	0	0	1	0	0	0	0	0	8
Red Phalarope	0	1	4	7	0	0	3	0	0	0	0	0	0	15
Northern Phalarope	17	14	0	0	0	0	0	0	0	0	0	0	0	31
Phalarope	29	12	9	2	4	1	0	2	0	1	0	0	0	60
Pomarine Jaeger	0	3	0	0	0	0	0	0	0	0	0	0	0	3
Jaeger	2	9	1	0	0	0	0	0	0	0	0	0	0	12
Sabine's Gull	2	0	0	0	0	0	0	0	0	0	0	0	0	2
Black Tern	13	0	0	0	0	0	0	0	0	0	0	0	0	13
Sooty Tern	0	0	0	0	0	4	5	0	0	0	4	0	0	13
Brown-winged Tern	4	0	0	0	0	0	0	0	0	0	0	0	0	4
Tern	3	0	0	0	1	0	0	0	0	0	0	0	0	4
<u>Empidonax</u>	0	1	0	0	0	0	0	0	0	0	0	0	0	1
Bird	0	1	0	0	1	0	0	0	0	0	0	0	0	2
Totals	126	165	393	292	162	425	53	12	29	52	38	36	40	1823

Table 5 Summary of Area B cont'd.

	No. of Birds	No. of Sightings	No. of Species	No. of Birds In Flocks	No. of Birds Not In Flocks	No. of Flocks	No. of Hours	No. of Miles
<u>August</u>								
16	126	55	11	45	81	6	6.10	43.6
17	165	80	13	45	120	4	9.30	71.0
18	393	101	11	261	132	20	9.75	96.0
19	292	98	10	135	157	9	10.25	91.0
20	162	60	11	81	81	8	10.25	89.0
21	425	60	12	332	93	7	9.80	82.0
22	53	31	7	14	39	1	9.50	68.0
23	12	12	7	0	12	0	9.70	59.0
24	29	20	5	6	23	1	9.80	72.0
25	52	47	6	0	52	0	9.50	79.0
26	38	34	5	0	38	0	9.10	117.0
27	36	33	4	0	36	0	8.50	85.0
28	40	36	3	0	40	0	9.50	70.0
Totals	1823	667	29	919	904	55	121.05	1022.6

FLOCK COMPOSITION

Species	No.	% of Species Population In Flocks	% of Total Birds In Flocks	No. of Flocks Species Present In.
Wedge-tailed Shearwater	139	61.5	15.1	17
Manx Shearwater	4	12.1	.4	2
Juan Fernandez Petrel	621	71.2	67.5	37
Shearwater Petrel	55	62.5	5.9	4
Galapagos Storm Petrel	2	7.1	.2	1
Leach's Type	11	18.9	1.1	2
Blue-faced Booby	5	38.4	.5	1
Red-footed Booby	1	4.0	.1	1
Brown Booby	8	23.5	.8	1
Magnificent Frigatebird	1	100.0	.1	1
Frigatebird	11	61.1	1.1	4
Shorebird	7	87.5	.7	1
Northern Phalarope	22	70.9	2.3	2
Phalarope	14	23.3	1.5	2
Pomarine Jaeger	2	67.0	.2	1
Black Tern	8	61.5	.8	1
Sooty Tern	8	61.5	.8	2
Totals	919	-	100%	-

TABLE 6. SUMMARY OF AREA C

Species	August			September			4	5	6	Totals
	29	30	31	1	2	3				
<u>Procellaria</u>	0	0	1	0	0	0	0	0	0	1
Pale-footed Shearwater	0	1	0	0	0	0	0	0	0	1
Wedge-tailed Shearwater	0	0	0	0	3	335	111	22	0	471
Slender-billed Shearwater	0	1	0	0	0	0	0	0	0	1
Manx Shearwater	0	0	0	0	0	1	2	2	14	19
Dark-rumped Petrel	0	0	0	2	0	0	0	0	0	2
Juan Fernandez Petrel	0	0	0	0	4	14	2	0	0	20
Kermadec Petrel	1	0	0	1	2	4	6	2	0	16
Collared Petrel	10	2	0	2	4	7	0	0	0	25
Shearwater-Petrel	2	1	0	4	4	15	4	1	2	33
<u>Pterodroma</u>	1	1	0	0	0	0	0	0	0	2
White-faced Storm Petrel	3	10	0	1	0	0	0	0	0	14
Galapagos Storm Petrel	0	4	7	15	14	3	5	1	0	49
Leach's Storm Petrel	1	20	14	0	3	13	1	0	0	52
Leach's Type	4	15	12	1	1	0	1	0	0	34
Black Storm Petrel	0	0	0	0	4	5	6	0	0	15
Markham's Storm Petrel	1	11	2	2	0	0	0	0	0	16
<u>Oceanodroma</u>	1	5	31	7	5	32	10	6	2	99
Red-billed Tropicbird	0	0	0	0	0	0	1	3	1	5
Red-tailed Tropicbird	0	0	0	0	0	1	0	0	0	1
Blue-faced Booby	0	0	0	2	2	2	6	12	8	32
Red-footed Booby	0	0	0	1	5	3	6	48	20	83
Brown Booby	0	0	0	0	0	0	0	0	1	1
Booby	0	0	0	0	0	0	0	0	20	20
Great Frigatebird	0	0	0	0	4	5	0	0	0	9
Frigatebird	0	0	0	19	18	5	4	0	5	51
Whimbrel	0	0	0	0	0	0	0	0	4	4
Red Phalarope	0	0	21	0	1	3	6	13	28	72
Phalarope	0	1	15	0	0	9	8	10	9	52
Pomarine Jaeger	0	0	0	0	0	0	0	1	0	1
Long-tailed Jaeger	0	0	0	2	0	0	1	1	0	4
Skua	0	0	0	0	0	0	0	1	0	1
Jaeger	0	0	0	0	0	4	6	0	1	11
Swallow-tailed Gull	0	0	1	0	0	0	0	0	0	1
Common Noddy	0	0	0	0	0	1	0	0	0	1
Black Tern	0	0	0	0	0	0	0	0	1	1
Arctic Tern	0	1	0	0	0	9	0	4	0	14
Sooty Tern	0	0	0	179	1	127	5	10	0	322
Tern	0	0	0	1	0	0	0	2	25	28
Swallow	0	0	0	0	0	0	1	1	0	2
Bird	1	0	0	0	0	0	0	0	0	1
Totals	25	73	104	239	75	598	192	140	141	1587

Table 6 Summary of Area C cont'd.

	No. of Birds	No. of Sightings	No. of Species	No. of Birds In Flocks	No. of Birds Not In Flocks	No. of Flocks	No. of Hours	No. of Miles
<u>August</u>								
29	25	20	5	5	20	1	9.20	82.8
30	73	50	9	11	62	2	8.00	92.8
31	104	62	6	0	104	0	9.40	62.0
<u>September</u>								
1	239	43	12	187	52	6	9.60	72.0
2	75	44	12	15	60	3	9.90	74.0
3	598	94	18	478	120	12	9.75	93.0
4	192	76	16	81	111	5	10.00	89.0
5	140	44	14	79	61	4	9.80	103.0
6	141	42	12	83	58	4	9.80	91.0
Totals	1587	545	31	939	648	37	85.45	759.6

FLOCK COMPOSITION

Species	No.	% of Species Population In Flocks	% of Total Birds In Flock	No. of Flocks Species Present In.
Wedge-tailed Shearwater	388	82.3	41.3	11
Manx Shearwater	10	52.6	1.0	1
Juan Fernandez Petrel	5	25.0	.5	3
Collared Petrel	5	20.0	.5	1
Shearwater-Petrel	2	6.0	.2	1
Galapagos Storm Petrel	5	10.2	.5	2
Leach's Storm Petrel	8	15.3	.8	3
Leach's Type	5	14.7	.5	1
Black Storm Petrel	2	13.3	.2	1
Oceanodroma	26	26.2	2.7	2
Blue-faced Booby	10	31.3	1.0	3
Red-footed Booby	62	74.6	6.6	5
Booby	20	100.0	2.1	1
Great Frigatebird	8	88.8	.8	2
Frigatebird	21	41.1	2.2	8
Red Phalarope	12	16.6	1.2	2
Jaeger	3	27.2	.3	2
Arctic Tern	8	57.1	.8	5
Sooty Tern	314	97.5	33.4	15
Tern	25	89.2	2.6	1
Totals	939	-	100%	-

TABLE 7. SUMMARY OF AREA D

Species	September							Totals
	15	16	17	18	19	20	21	
Waved Albatross	0	0	0	0	0	23	0	23
Pink-footed Shearwater	0	0	11	4	2	0	0	17
Wedge-tailed Shearwater	20	2	0	6	0	0	0	28
Black-vented Shearwater	1352	0	0	0	0	0	0	1352
Manx Shearwater	0	1	0	0	0	0	0	1
Audubon's Shearwater	0	0	0	0	13	8	0	21
Dark-rumped Petrel	0	0	0	0	1	17	9	27
Kermadec Petrel	1	4	1	0	1	0	2	9
Collared Petrel	0	0	0	0	1	0	0	1
Shearwater-Petrel	2	2	11	2	8	2	2	29
Graceful Storm Petrel	0	0	0	0	0	19	1	20
Galapagos Storm Petrel	0	9	4	0	2	8	2	25
Leach's Storm Petrel	6	1	0	2	1	0	0	10
Black Storm Petrel	14	3	5	1	0	0	0	23
Markham's Storm Petrel	0	0	0	0	4	0	8	12
Storm Petrel	0	0	0	0	0	0	3	3
<u>Oceanodroma</u>	16	25	5	3	5	3	0	57
Red-billed Tropicbird	0	0	1	0	1	2	0	4
Blue-footed Booby	0	0	0	0	0	149	0	149
Blue-faced	8	8	7	1	151	2	7	184
Red-footed Booby	3	1	1	24	1031	0	0	1060
Booby	0	3	0	0	50	0	0	53
Magnificent Frigatebird	0	0	0	0	7	5	0	12
Frigatebird	0	0	0	5	14	3	3	25
Green Heron	0	1	0	0	0	0	0	1
Shorebird	0	4	0	0	0	0	0	4
Red Phalarope	7	3	7	4	0	0	5	26
Northern Phalarope	0	0	1	0	0	1	0	2
Phalarope	24	1	7	11	0	16	0	59
Pomarine Jaeger	2	0	0	0	0	0	0	2
Parasitic Jaeger	1	0	0	0	0	0	0	1
Long-tailed Jaeger	0	0	0	0	1	0	0	1
Skua	0	0	0	0	0	1	0	1
Jaeger	0	1	0	0	0	1	0	2
Swallow-tailed Gull	0	0	0	0	0	28	0	28
Arctic Tern	0	0	3	3	6	0	1	13
Sooty Tern	0	0	0	295	288	0	0	583
Tern	2	1	0	2	0	0	0	5
Barn Swallow	0	1	0	0	0	0	0	1
Cliff Swallow	1	0	0	0	0	0	0	1
Prothonotary Warbler	1	0	0	0	0	0	0	1
Unidentified Passerines	0	1	0	0	0	0	0	1
Bird	0	0	0	0	0	1	0	1
Totals	1460	72	64	363	1587	289	43	3878

Table 7 - Summary of Area D cont'd.

	No. of Birds	No. of Sightings	No. of Species	No. of Birds In Flocks	No. of Birds Not In Flocks	No. of Flocks	No. of Hours	No. of Miles
<u>September</u>								
15	1460	62	12	1391	69	25	8.90	74
16	72	46	14	0	72	0	9.40	89
17	64	53	10	0	64	0	9.10	91
18	363	33	10	324	39	4	8.10	80
19	1587	89	15	1370	217	16	8.75	80
20	289	113	13	136	153	13	11.30	73
21	43	39	9	0	43	0	9.10	87
Totals	3878	435	31	3221	657	58	64.64	574

FLOCK COMPOSITION

Species	No.	% of Species Population In Flocks	% of Total Birds In Flocks	No. of Flocks Species Present In
Wedge-tailed Shearwater	11	39.2	.3	3
Black-vented Shearwater	1349	99.7	41.8	21
Audubon's Shearwater	6	28.5	.1	1
Graceful Storm Petrel	16	80.0	.4	2
Black Storm Petrel	12	52.1	.3	1
Oceanodroma	12	21.0	.3	1
Blue-footed Booby	103	69.1	3.1	9
Blue-faced Booby	142	77.1	4.4	8
Red-footed Booby	932	87.9	28.9	14
Booby	50	94.3	1.5	1
Magnificent Frigatebird	5	41.6	.1	1
Frigatebird	14	56.0	.4	6
Phalarope	16	27.1	.4	2
Swallow-tailed Gull	8	28.5	.2	1
Arctic Tern	8	61.5	.2	4
Sooty Tern	537	92.1	16.6	13
Totals	3221	-	100%	-

TABLE 8. SUMMARY OF AREA E

Species	September					Totals
	22	23	24	25	26	
Waved Albatross	0	0	1	0	0	1
Pink-footed Shearwater	0	0	7	0	0	7
Wedge-tailed Shearwater	0	0	0	27	0	27
Audubon's Shearwater	0	0	1	0	5	6
Dark-rumped Petrel	9	13	10	0	0	32
Kermadec Petrel	1	0	0	0	0	1
Cape Petrel	0	3	1	0	0	4
Shearwater	0	0	0	1	0	1
Shearwater-Petrel	2	1	3	4	5	15
Galapagos Storm Petrel	6	6	6	7	42	67
Harcourt's Storm Petrel	0	0	3	0	2	5
Leach's Storm Petrel	1	0	0	0	0	1
Leach's Type	1	0	0	0	0	1
Black Storm Petrel	0	0	0	7	5	12
Markham's Storm Petrel	2	12	5	0	0	19
Storm Petrel	3	5	8	3	0	19
<u>Oceanodroma</u>	0	1	0	0	0	1
Red-billed Tropicbird	0	0	0	2	0	2
Blue-faced Booby	4	4	16	79	0	103
Red-footed Booby	0	0	41	5	0	46
Brown Booby	0	0	0	0	21	21
Booby	0	0	10	0	0	10
Magnificent Frigatebird	0	0	3	3	0	6
Frigatebird	1	1	108	2	0	112
Whimbrel	0	1	0	0	0	1
Shorebird	0	0	0	1	0	1
Red Phalarope	22	35	6	0	0	63
Phalarope	2	5	1	9	0	17
Pomarine Jaeger	0	0	0	5	0	5
Parasitic Jaeger	0	0	1	0	0	1
Long-tailed Jaeger	0	0	1	1	0	2
Jaeger	0	0	1	0	0	1
Swallow-tailed Gull	0	0	1	0	0	1
Common Noddy	0	0	0	0	46	46
Black Tern	0	0	0	0	34	34
Arctic Tern	17	0	20	6	0	43
Sooty Tern	0	0	0	86	6	92
Tern	0	0	5	4	0	9
Nighthawk	0	0	0	0	1	1
Barn Swallow	0	0	0	0	1	1
Swallow	0	1	0	0	0	1
Unidentified Passerines	0	0	0	0	2	2
Bird	0	0	0	1	0	1
Totals	71	88	259	253	170	841

Table 8 -Summary of Area E cont'd.

	No. of Birds	No. of Sightings	No. of Species	No. of Birds In Flocks	No. of Birds Not In Flocks	No. of Flocks	No. of Hours	No. of Miles
September								
22	71	32	9	33	38	3	8.00	80
23	88	54	9	12	76	1	8.00	84
24	259	64	16	183	76	9	8.00	84
25	253	39	14	201	52	7	7.25	76
26	170	25	11	134	36	7	8.00	80
Totals	841	214	29	563	278	27	39.25	404

FLOCK COMPOSITION				
Species	No.	% of Species Population In Flock	% of Total Birds In Flock	No. of Flocks Species Present In
Wedge-tailed Shearwater	27	100.0	4.7	5
Audubon's Shearwater	5	83.3	.8	1
Shearwater-Petrel	6	40.0	1.0	2
Shearwater	1	100.0	.1	1
Galapagos Storm Petrel	30	44.7	5.3	4
Harcourt's Storm Petrel	1	20.0	.1	1
Storm Petrel	4	21.0	.7	1
Blue-faced Booby	80	77.6	14.2	7
Red-footed Booby	32	69.5	5.6	5
Brown Booby	16	76.1	2.8	2
Booby	10	100.0	1.7	2
Magnificent Frigatebird	3	50.0	.5	1
Frigatebird	107	95.5	19.0	6
Red Phalarope	38	60.3	6.7	3
Pomarine Jaeger	4	80.0	.7	2
Long-tailed Jaeger	1	50.0	.1	1
Common Noddy	46	100.0	8.1	3
Black Tern	28	82.3	4.9	2
Arctic Tern	27	62.7	4.7	5
Sooty Tern	92	100.0	16.3	6
Tern	5	55.5	.8	1
Totals	563	-	100.0 %	-

Figure J. Daily Noon Positions

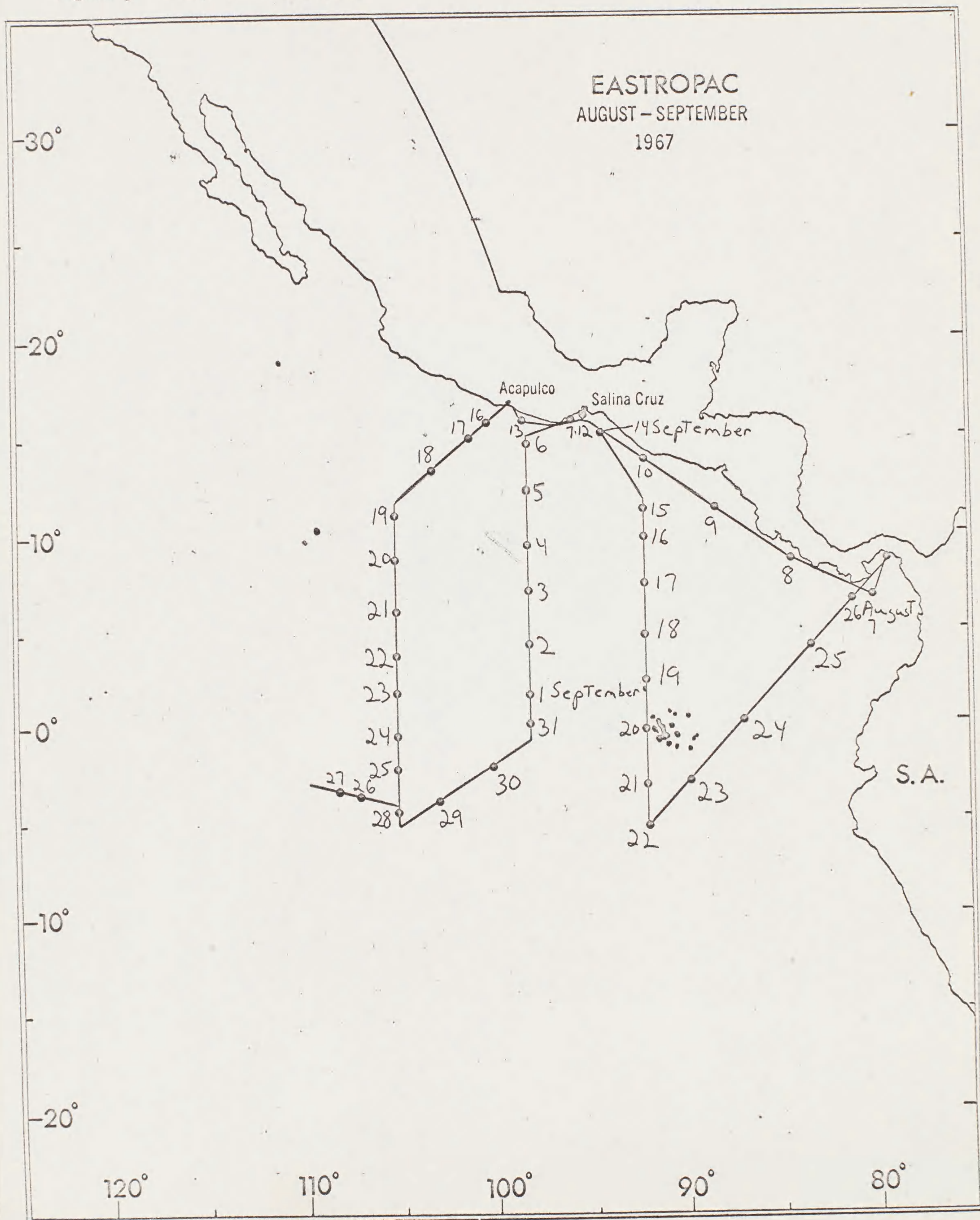


Figure 2. Daily Abundance of Birds

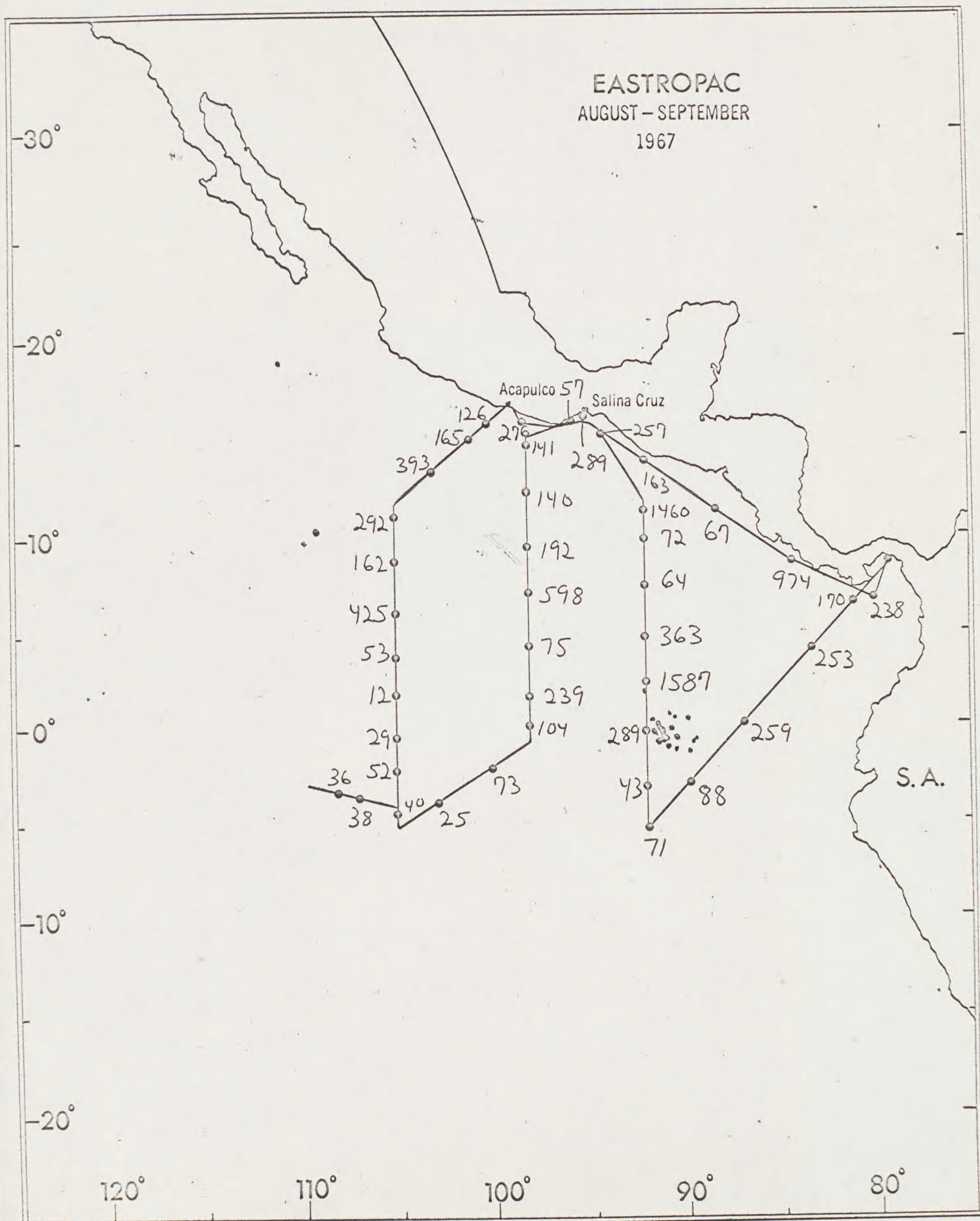


Figure 3. Daily Abundance of Turtles

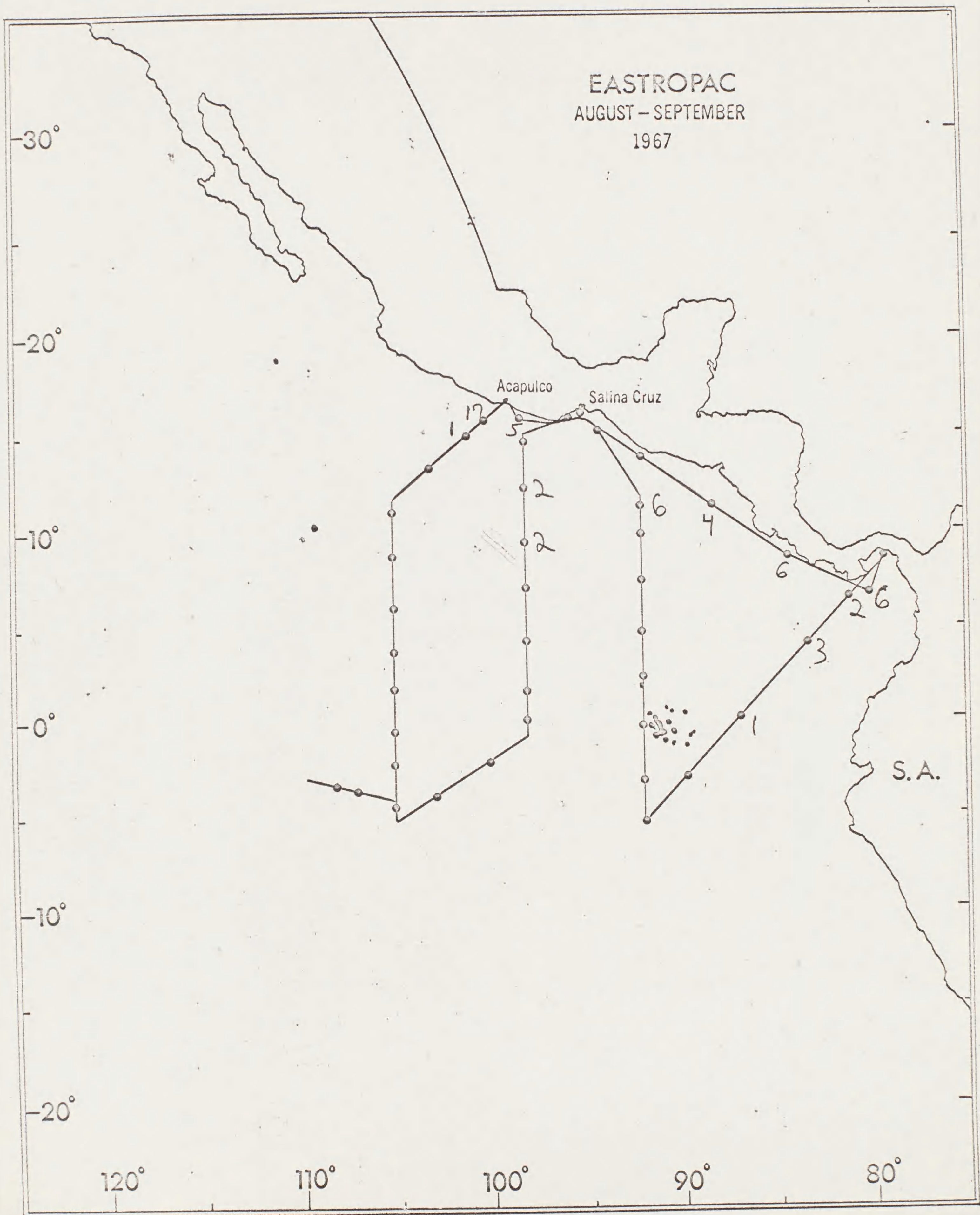


Figure 4. Daily Abundance of Pink-footed Shearwaters

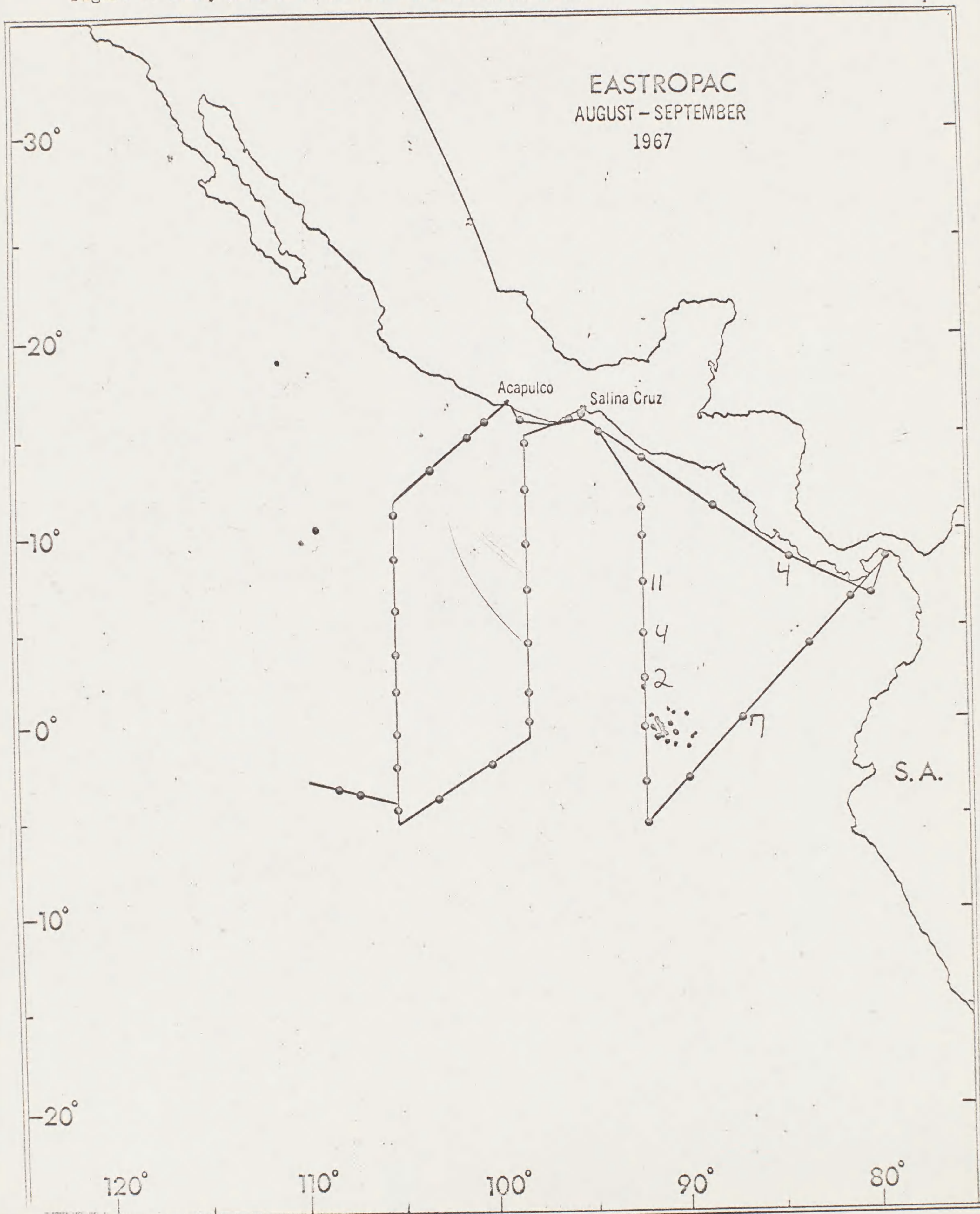


Figure 5. Daily Abundance of Wedge-tailed Shearwaters

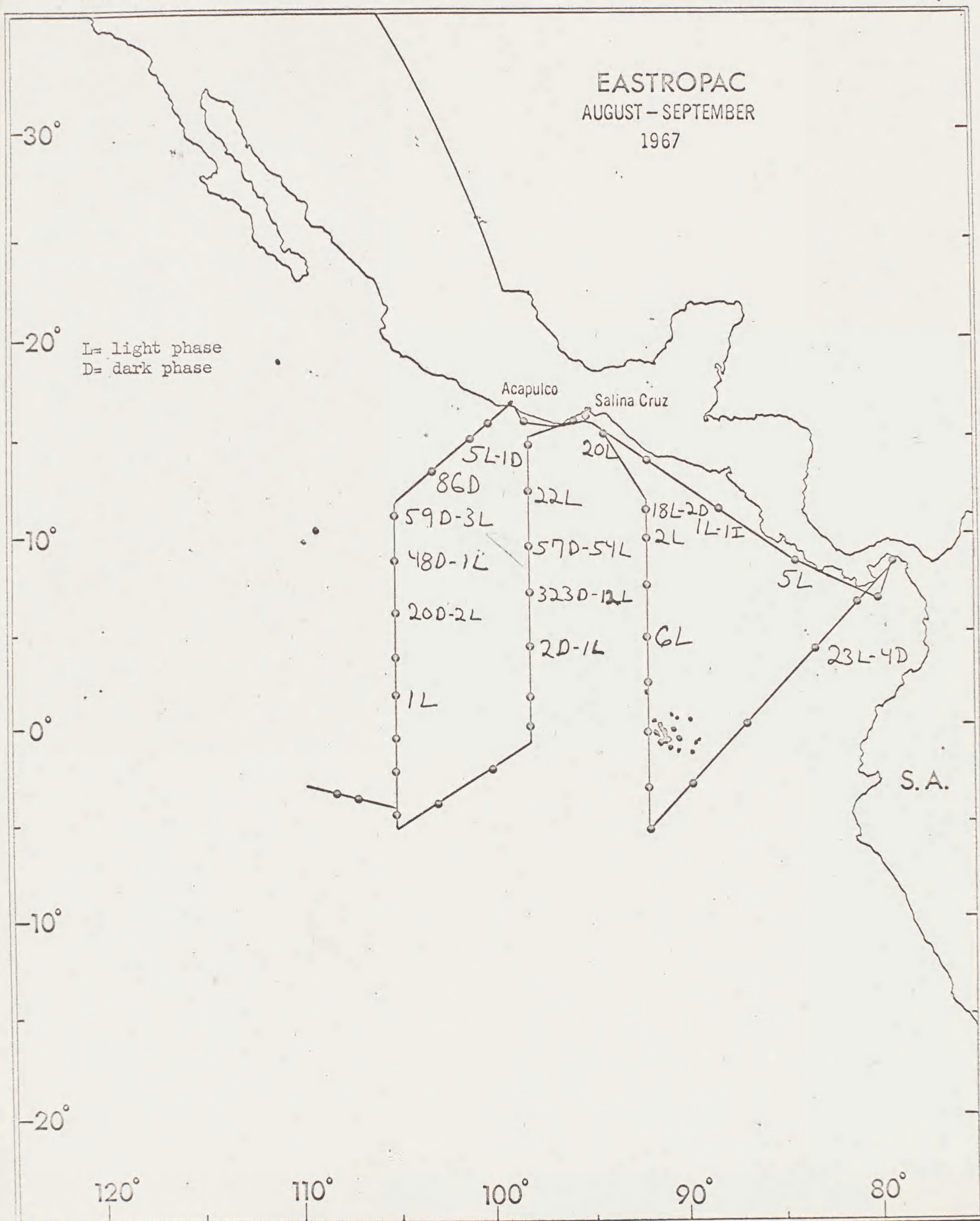


Figure 6. Daily Abundance of Dark-rumped Petrels

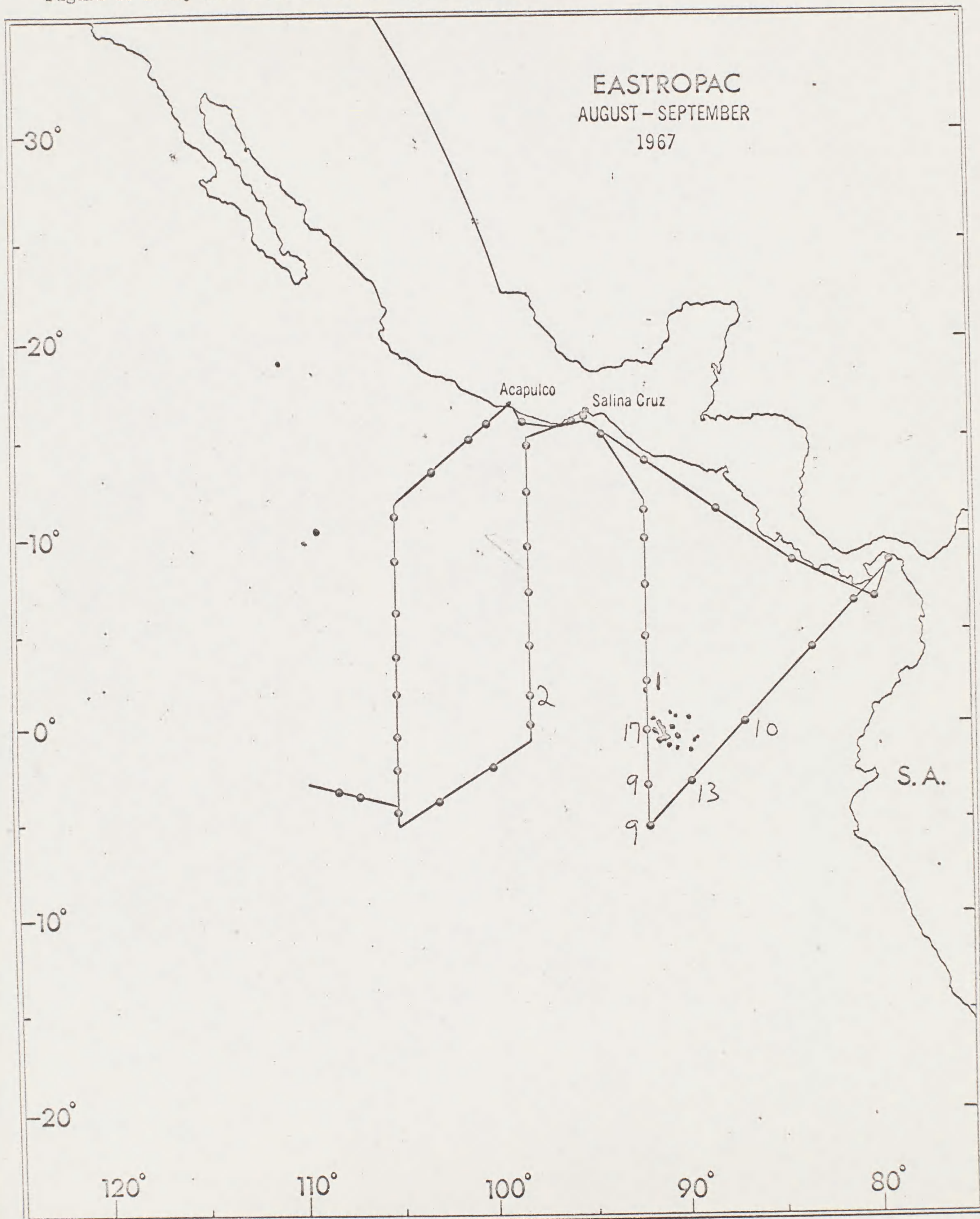


Figure 7. Daily Abundance of Juan Fernandez Petrels

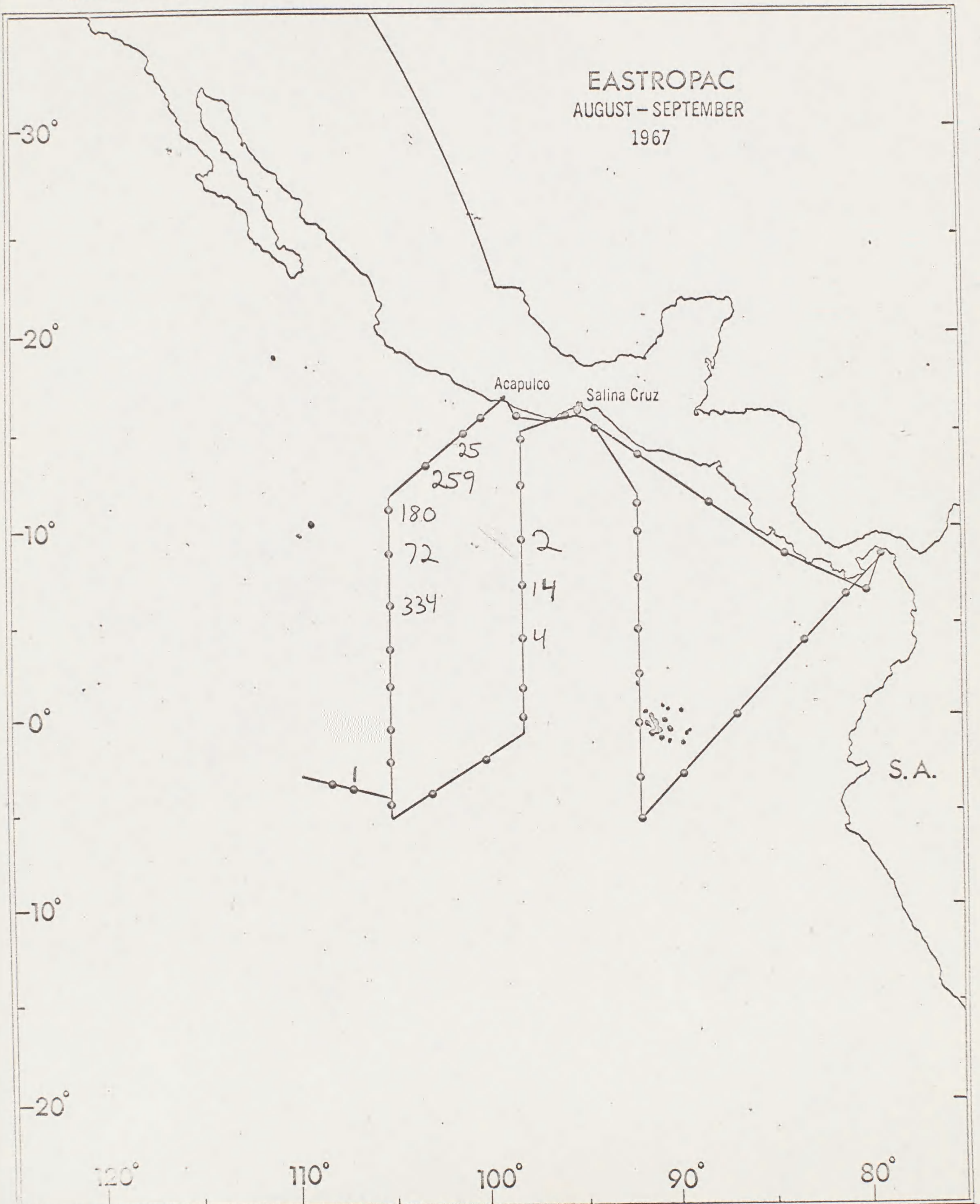


Figure 8. Daily Abundance of Kermadec Petrels

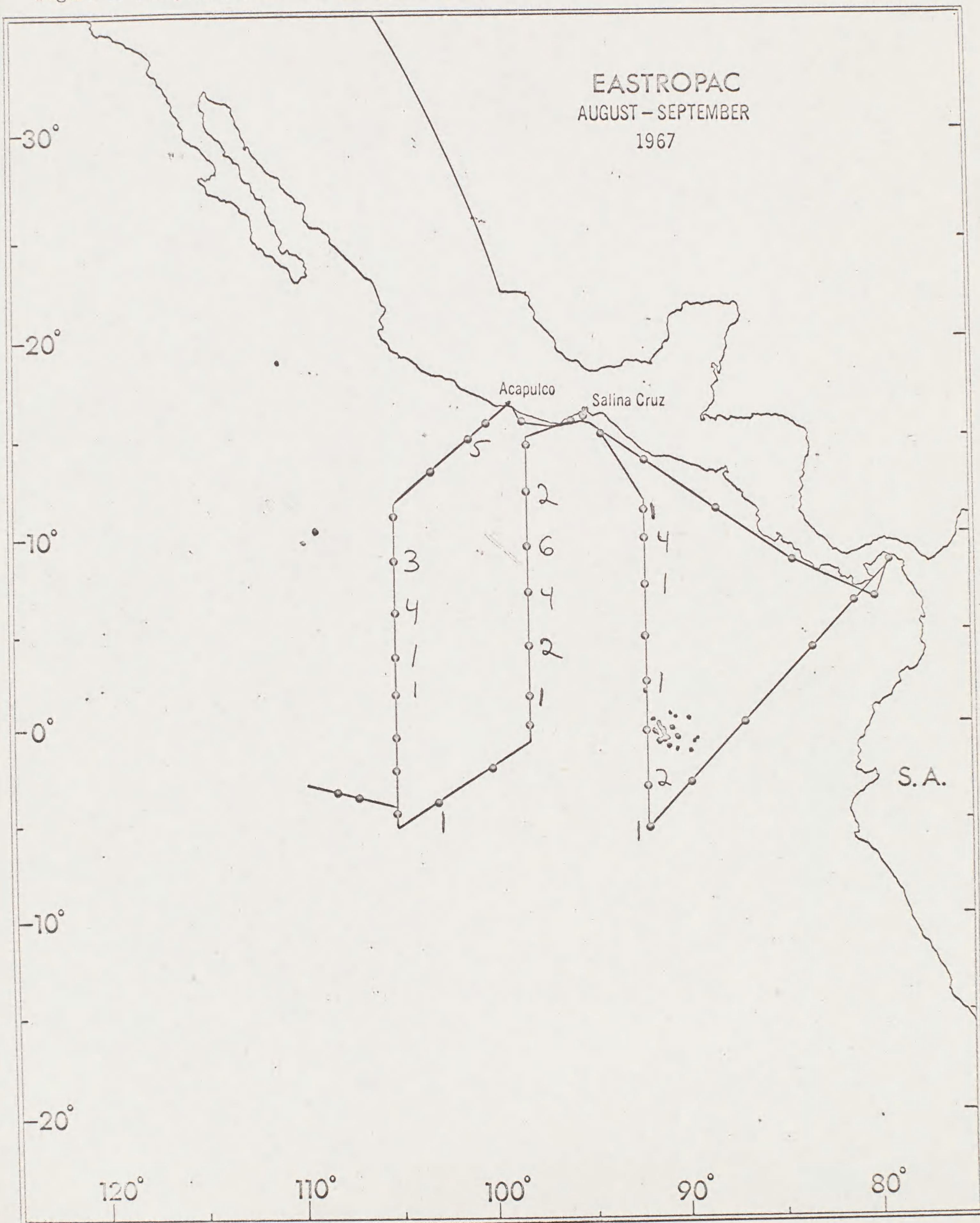


Figure 9. Daily Abundance of Collared Petrels

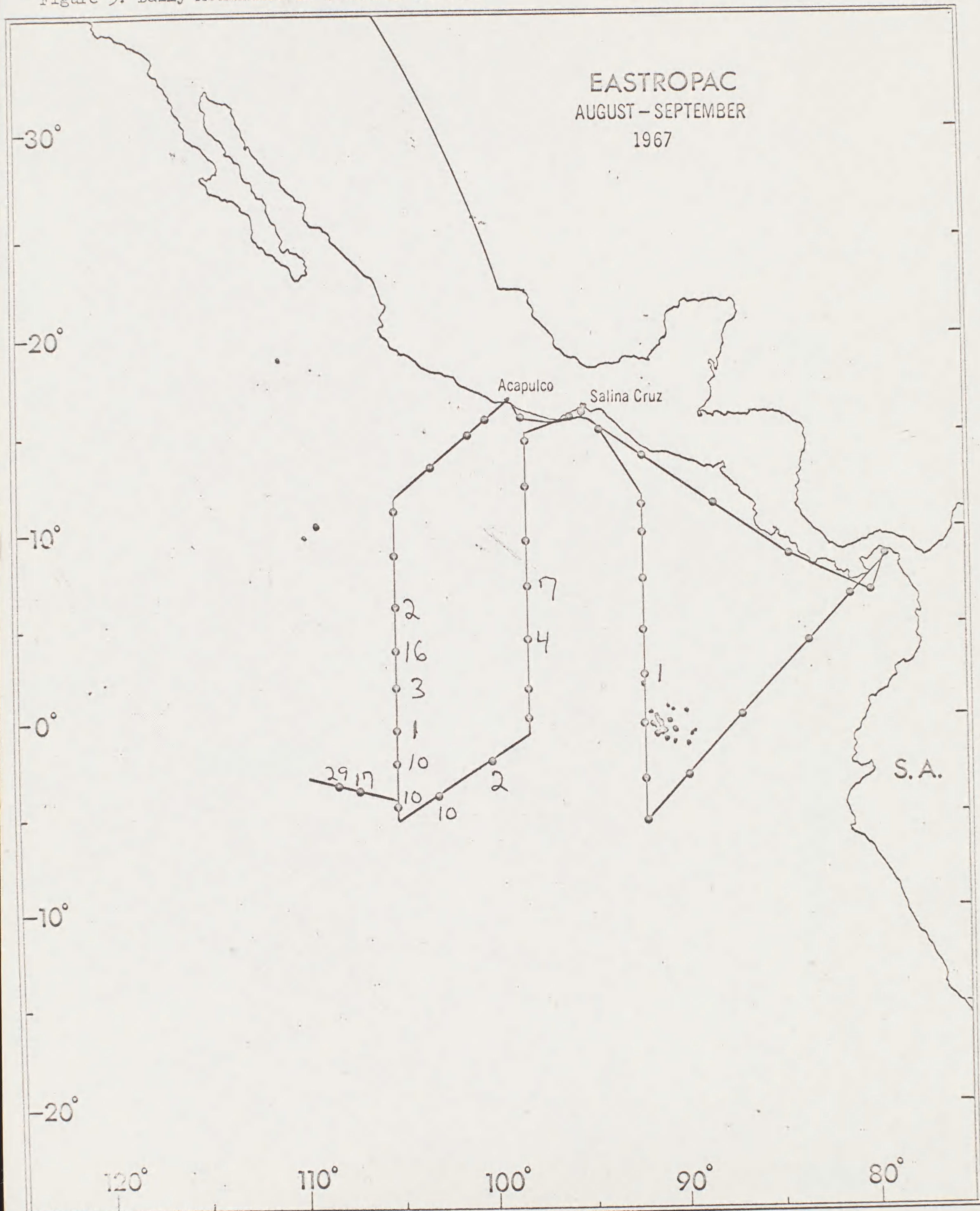


Figure 10. Daily Abundance of White-faced Storm Petrels

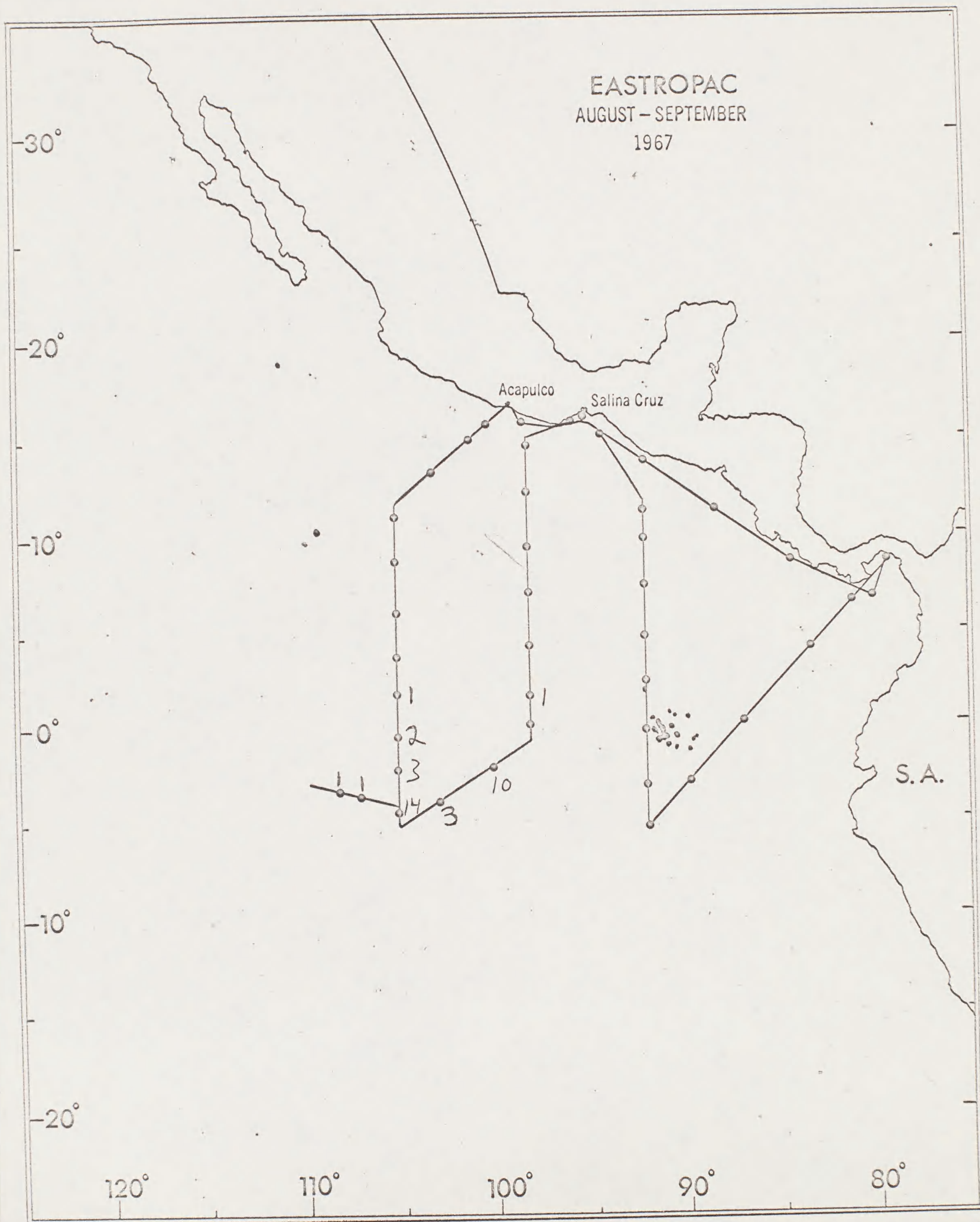


Figure 11. Daily Abundance of Galapagos Storm Petrels

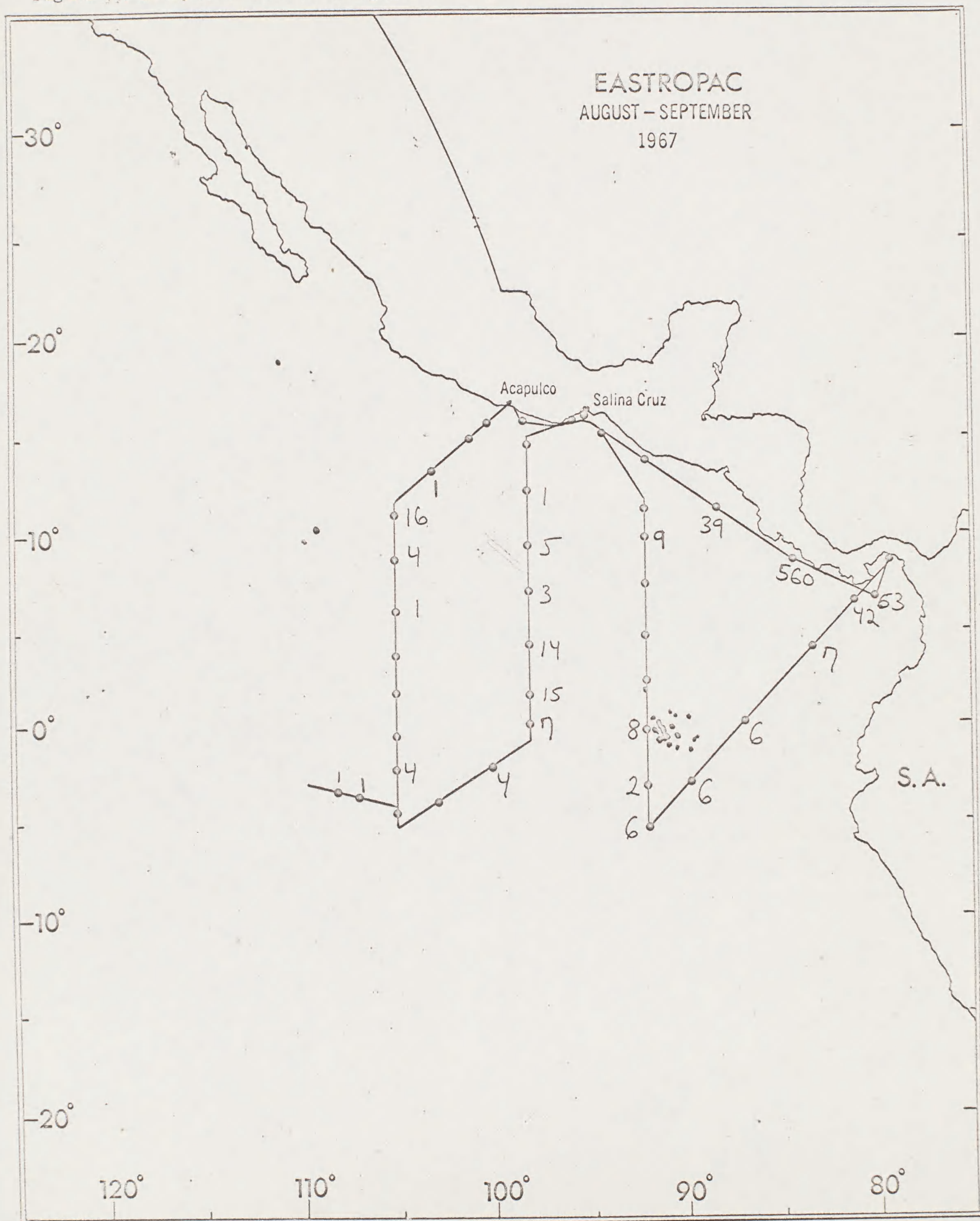


Figure 12. Daily Abundance of Leach's and Harcourt's Storm Petrels

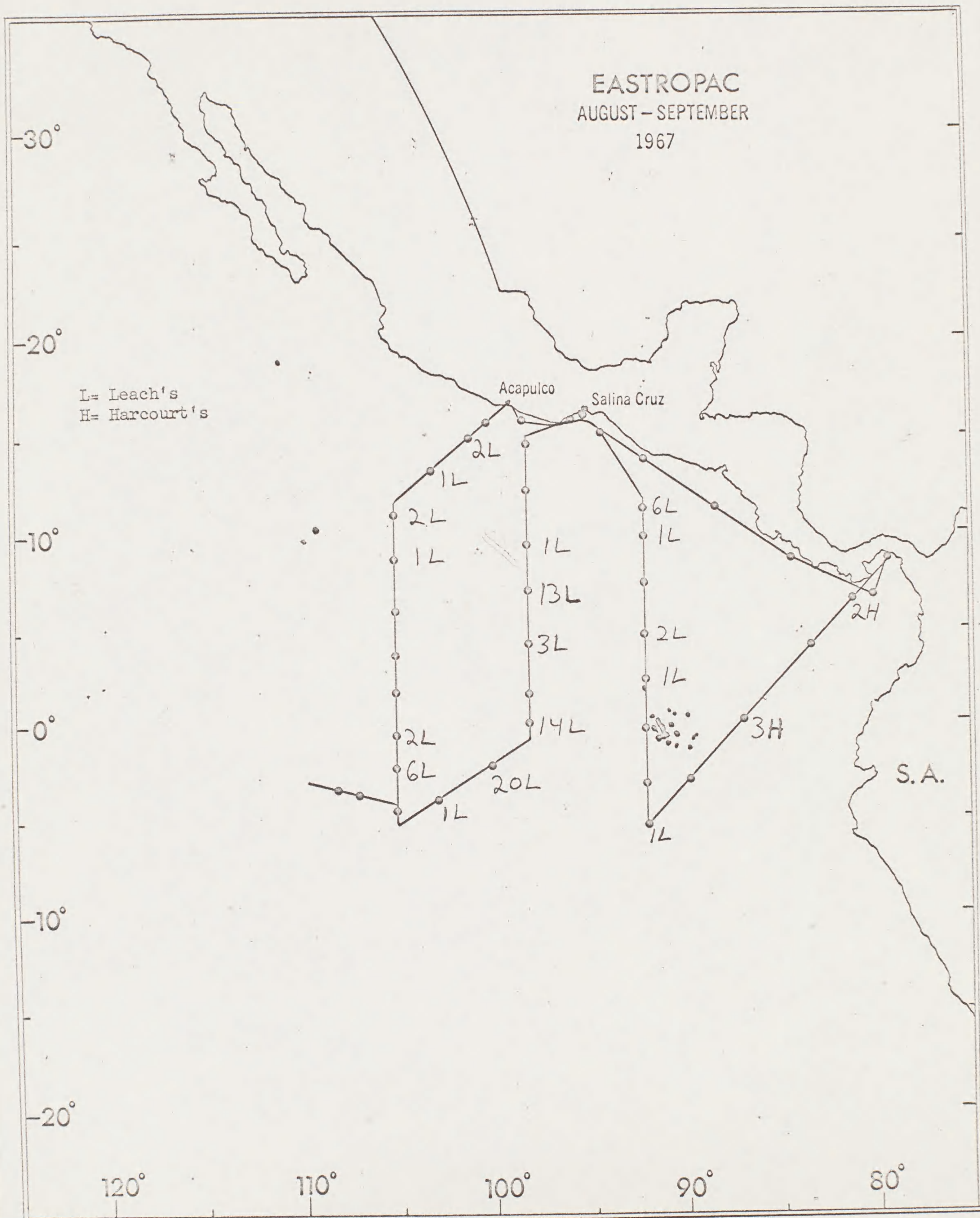


Figure 13. Daily Abundance of Markham's and Black Storm Petrels

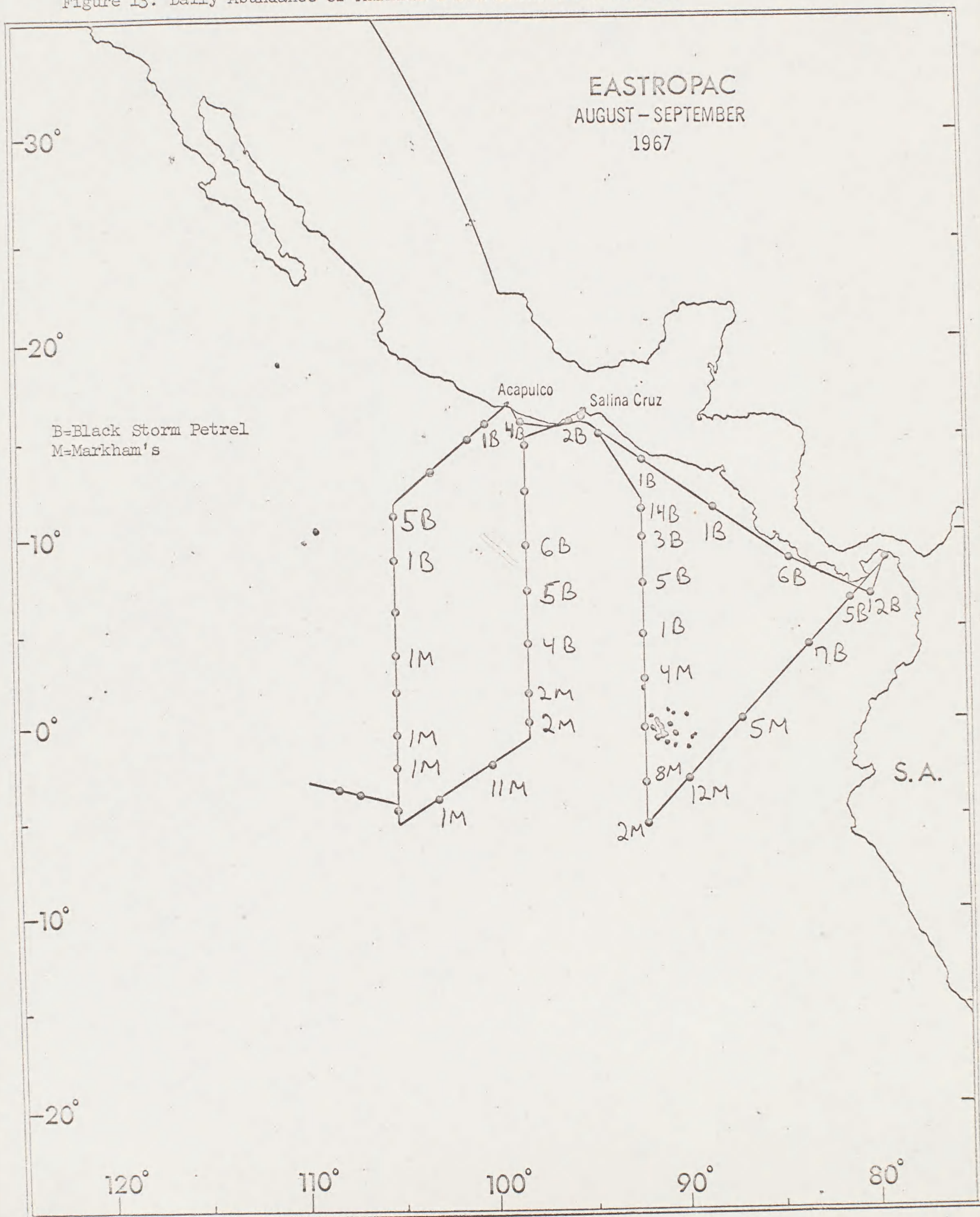


Figure 14. Daily Abundance of Blue-faced Boobies

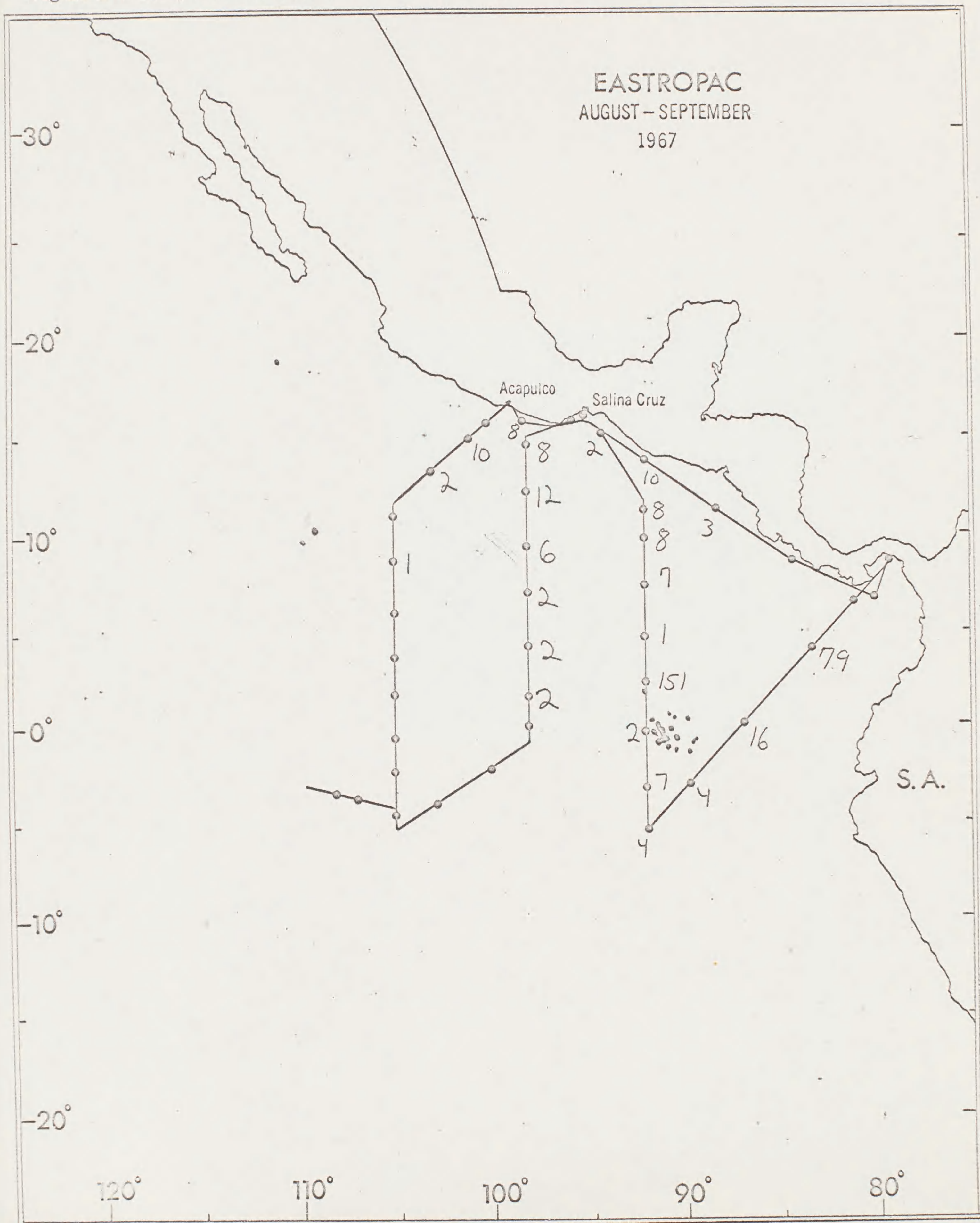


Figure 15. Daily Abundance of Red-footed Boobies

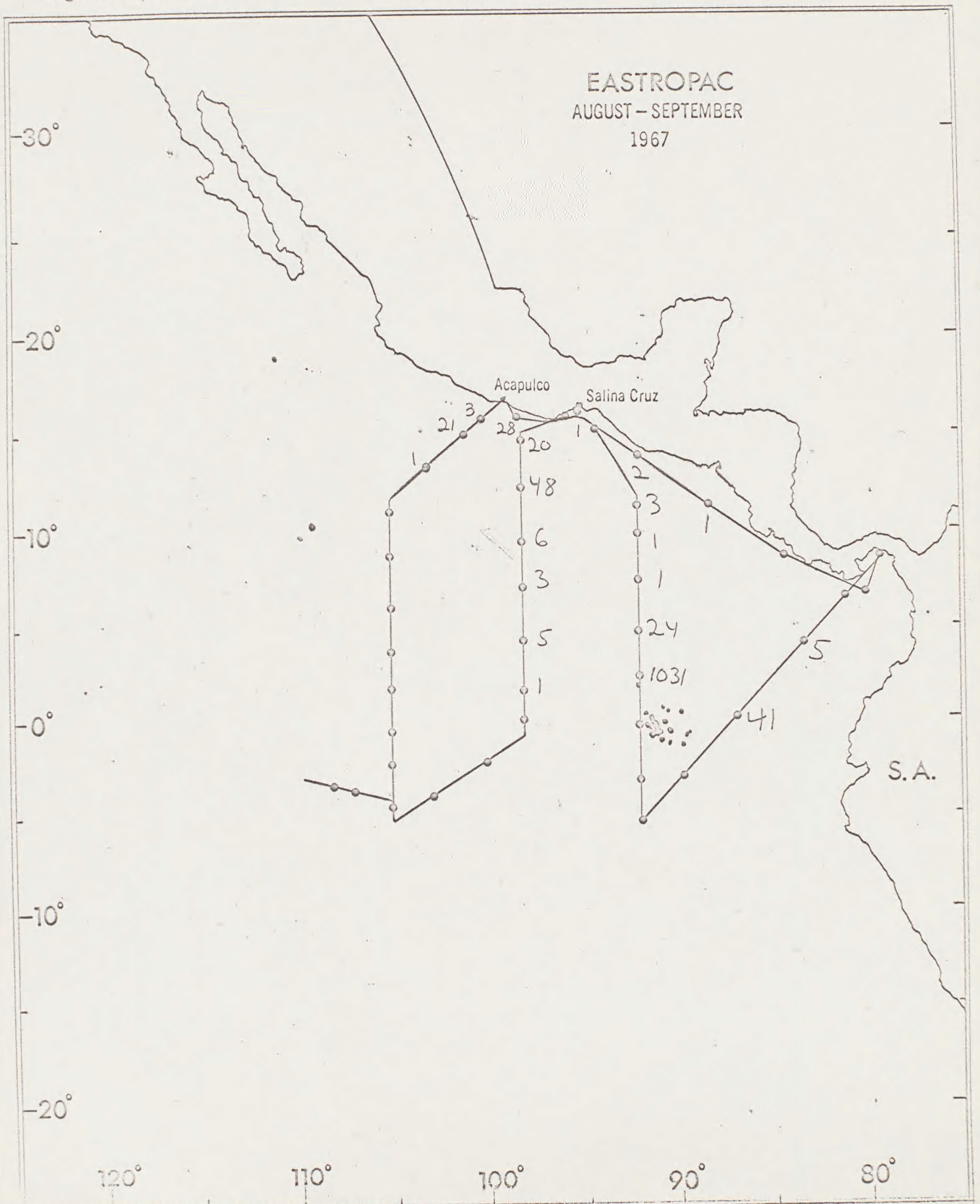


Figure 16. Daily Abundance of Sooty Terns

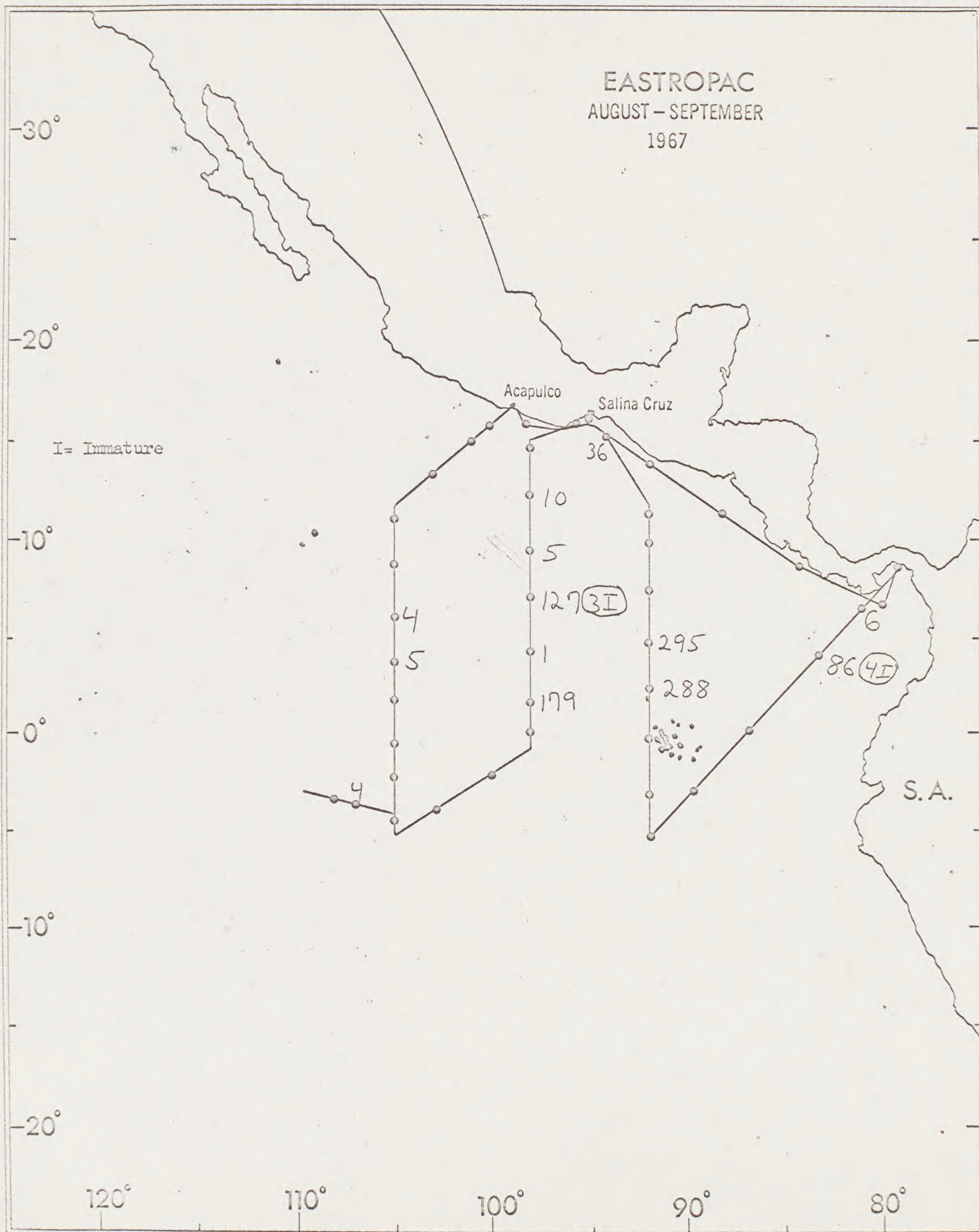


Figure 17. Daily Abundance of Flocks

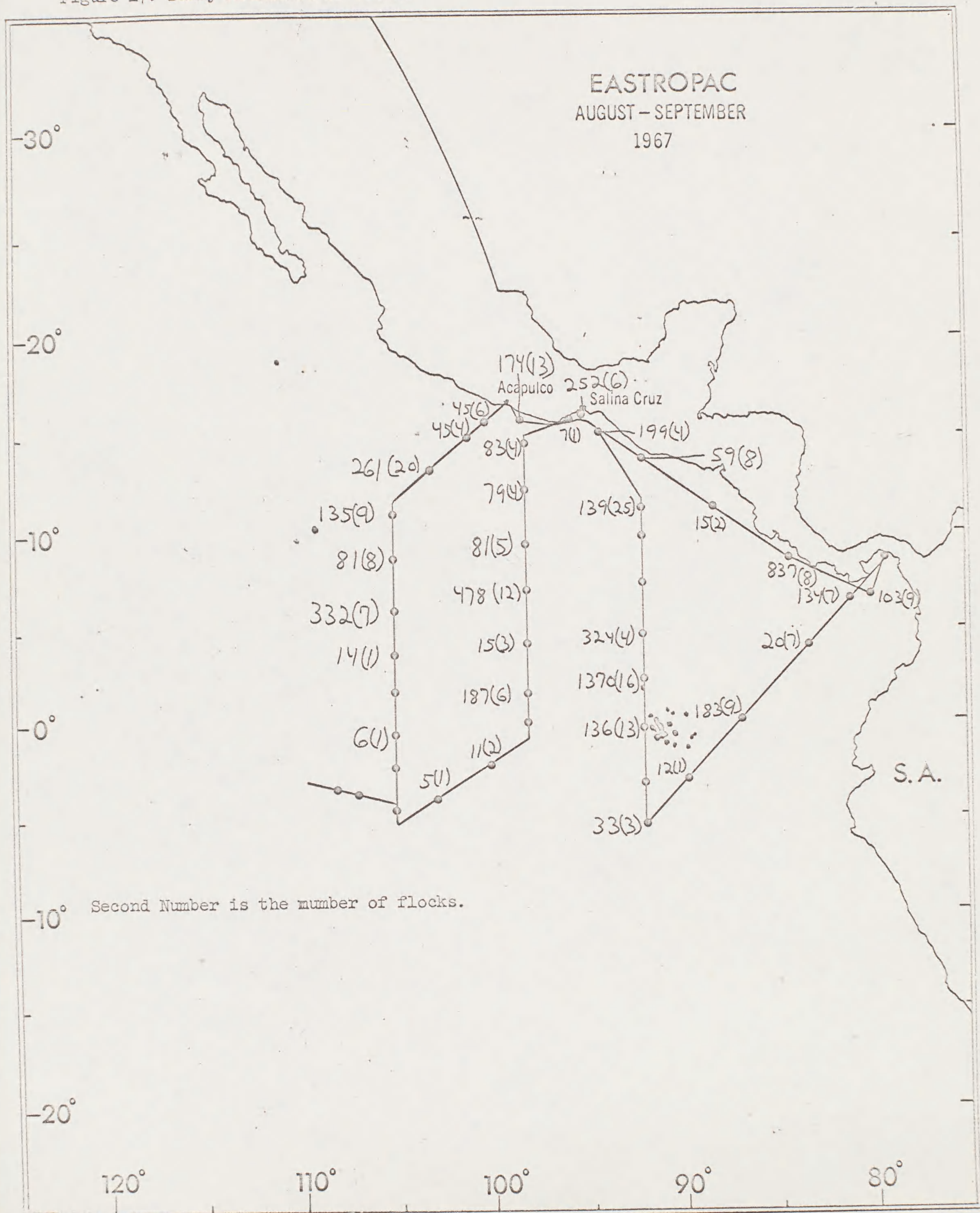


Figure 18. Daily Abundance of Feeding Flocks

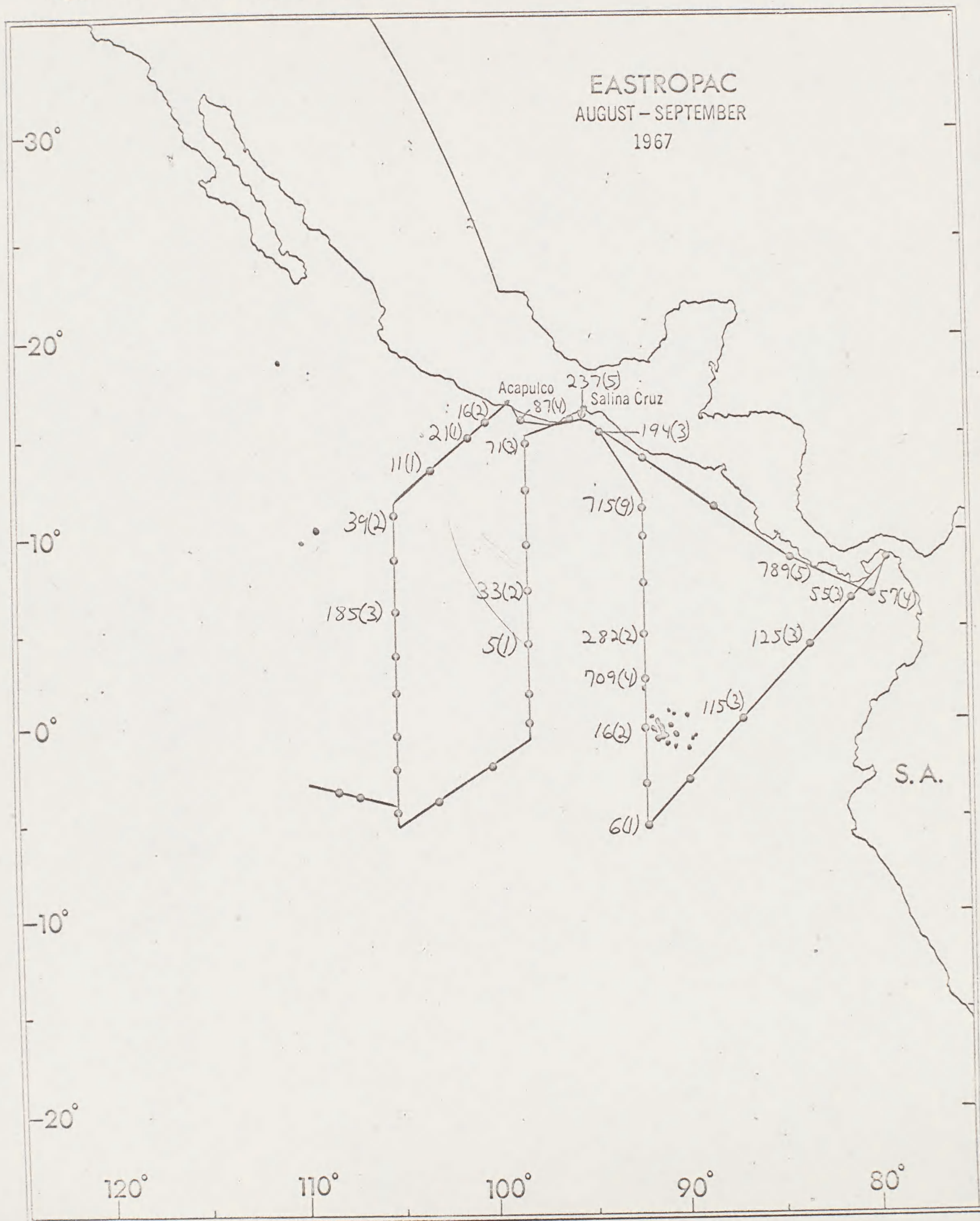


Figure 19. Daily Abundance of Flocks That Could Be Associated With Fish Schools

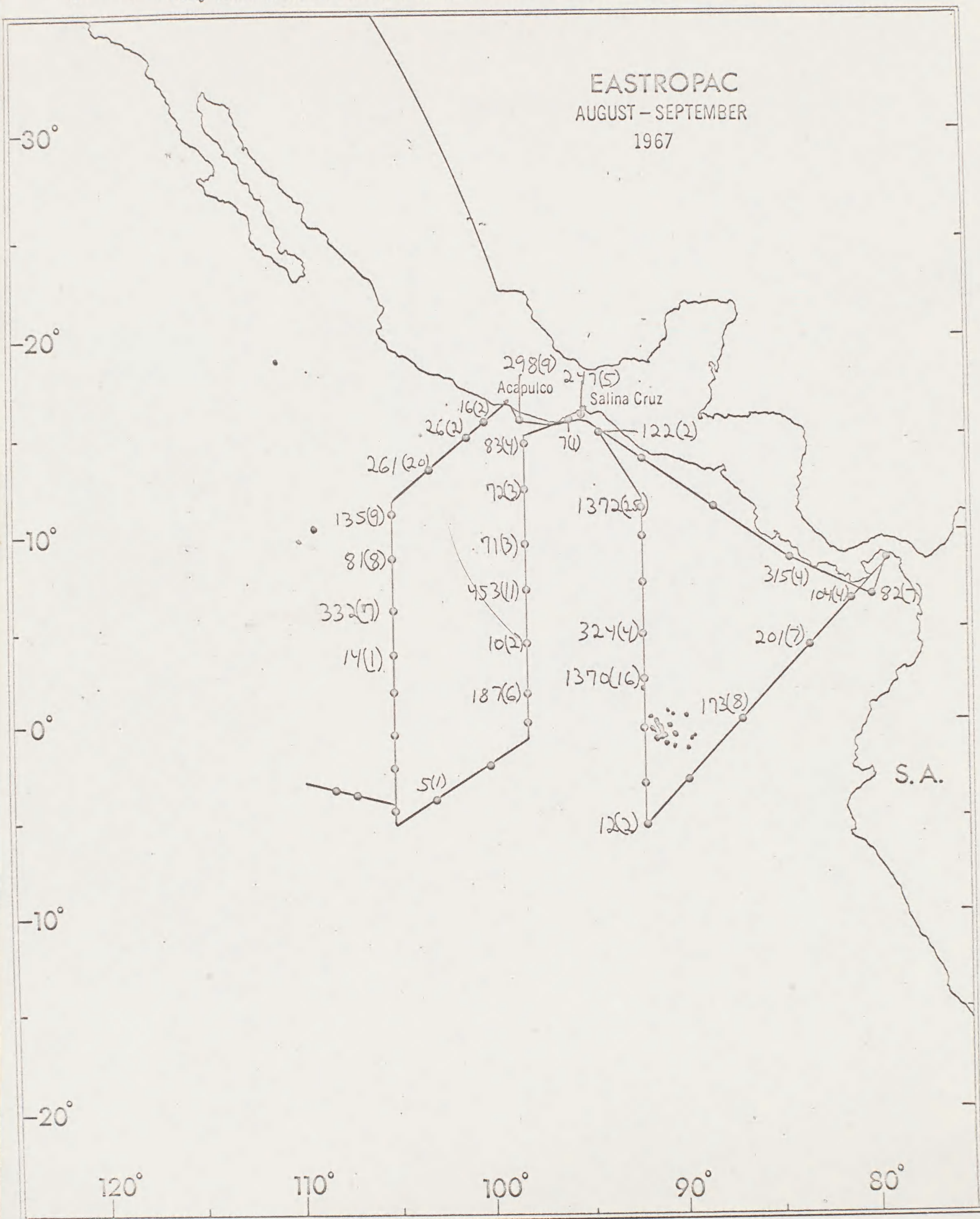


Figure 20. Daily Abundance of Flocks of Plankton Feeding Birds

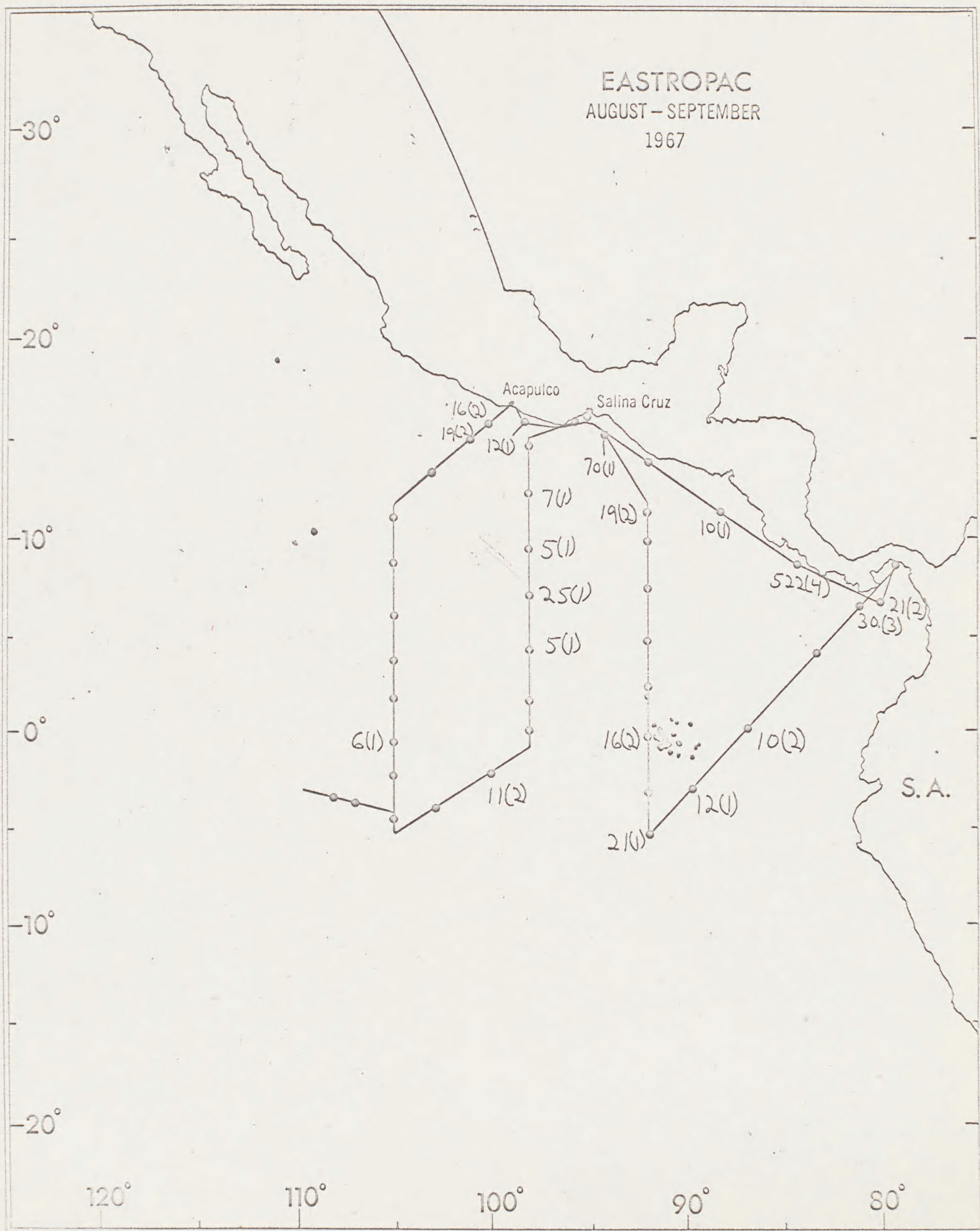
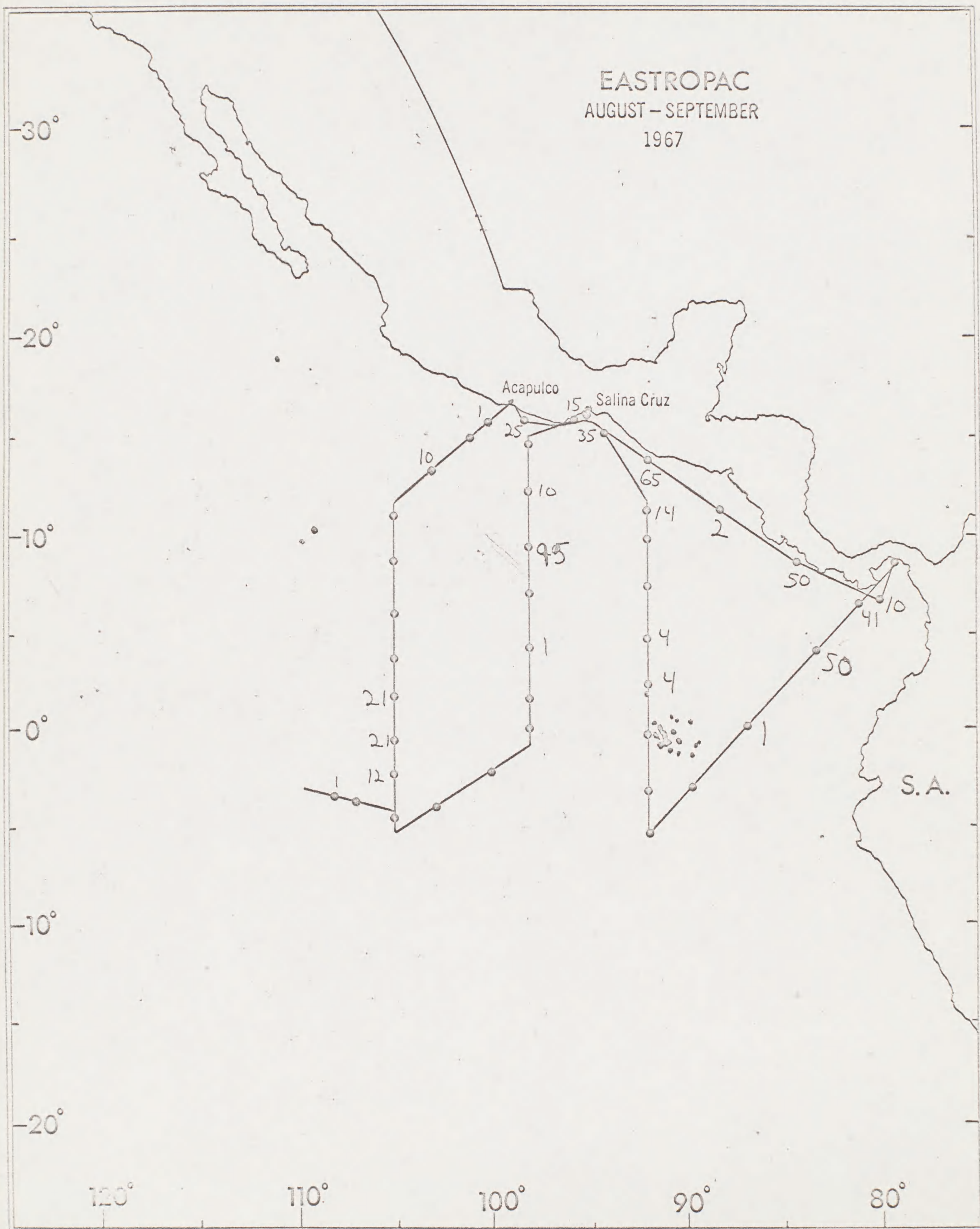


Figure 21. Daily Abundance of Cetaceans





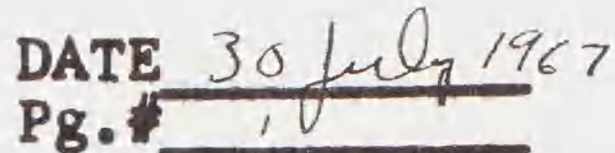
DATE 29 July 1967
Pg. # 1

	time	species	#	dir.	hgt.	remarks	loc.
	1400					Begin Observations	
	1410	Bird	1	S			5-P 1
	1420	Larids	4	⊙			Lead 2
	1440	frigate	1	⊙			Bird-1
	1445	frigate	1	⊙			Larid-4
FF	1450	Sooty Tern	45 ± 5			Feeding	frig-5
		C. Noddy	5				ST 111
		Bl. Tern	1				ST-25
	1500	Pearl Tern	2	E		ad + imm	CN-23
	1505	frigate	2	⊙			152
		tern	1	⊙			86
	1513	terns	4	⊙			63
	1515	Sooty Tern	2	NE		adults	738
TF	1520	terns	11	NE			238
	1525	Bridled Tern	1	NE		appeared to have white collar - lighter back	
	1534	terns	2	NE			
FF	1536	terns	10 ± 2	⊙		feeding	
FF	1550	terns	35 ± 5			5 me feeding, small fish at surface	
	1555	Sooty Tern	2			adults	
		Sooty Tern	35 ± 5			adults	
		C. Noddy	6			adults	
		Bl Tern	1			breeding plumage	
FF	1555	Sooty? Tern	25 ± 5			feeding	ST- fluttering close to H2O then dipping bill in
FF	1608	Sooty Tern	6			adults feeding	NT- landing in water while feeding
TF	1610	C. Noddy	6	E		Traveling	
	1615	Frigate	1	⊙		adult male.	
	1625	Shear-Pet	1	⊙			
MF	1645	Sooty Tern	5	⊙		Probably Great Shear. White underneath mottled Gray dorsally appeared to have white nump. Distant.	
	1700					Cease Obs.	
	1730					Resume	
FE	1734	C. Noddy	6	⊙		c/o 225°	
F	1740	Tern sp	10 ± 2			feeding	235
F	1750	Sooty Tern	18 ± 2			appear to be feeding	98
F	1756	terns (yr)	25 ± 5			adults feeding	33
						feeding.	

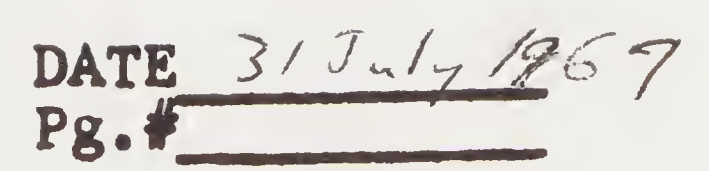


DATE 29 July 1967
Pg. # 2

	time	species	#	dir.	hgt.	remarks	loc.
FF	1805	tern sp.	30±5			feeding	
	1806	frigate	1	⊙			Tern sp 31
FF	1825	Sooty Tern	30±3	⊙			frig 4
		tern	1	⊙		Some feeding	ST 56
		frigate	3	⊙			
	1830					Cease Observations.	
FF	1833	Sooty Tern	11	⊙		Some feeding	Rough Gull - 3
	1834	Laughing Gull	1	⊙		molting - non breeding plumage	Sulid - 1
	1835	Laughing Gull	1	⊙		molting	
	1840	Sulid	1	NE		distant possible Gannet	95
	1848	Rough Gull	1	⊙		adult breeding plumage	
FF	1857	Sooty Tern	15±2			feeding	
	1900					Cease Observations.	



	time	species	#	dir.	hgt.	remarks	loc.
	0830					Begin Sunny. Few clouds - Calm.	
	0832	Sooty Tern	3	SE			
	0837	Sooty Tern	1	SE			
	0839	tern	1	E			
	0845	Sooty Tern	4	SE			
	0852	tern sp	4	⊙			
	0854	Sooty Tern	2	S			
	0859	tern sp	3	⊙			
	0907	Tern (sp)	1	SE			
SF	0922	Sooty Tern	6	⊙			
	0925	Bridled Tern	1	SE			
	0926	tern	3	SE			
	0929	Bridled Tern	1	SE			
	0955	tern	1	SE		Wing beats not as deep as <u>S. fuscata</u> More white over eye.	
	1000						
	1200					Cease Obs.	
TF	1210	Sooty Tern	26	SE		begin obs.	
	1230	Tern sp	2	⊙			
	1237	Sooty Tern	1	⊙			
	1300					Cease Obs.	
F	1530					Begin Obs - Cuba 20-30 miles to left.	
	1535	tern sp	20-25			appear to be feeding. Distant.	
	1545					Two Cetaceans heading SE. Range deep gray	
	1615	Bridled Tern	1	E		about 10' Small dark transverse	
	1630					dark fin placed well-back. Blunt	
	1730					forehead. No peak seen. When surfacing	
FF	1739	Sooty Tern	60-75			head appeared first, arched down,	
	1830					then fin and very shortly after fin under	
						water. Blow area well-developed - indented	

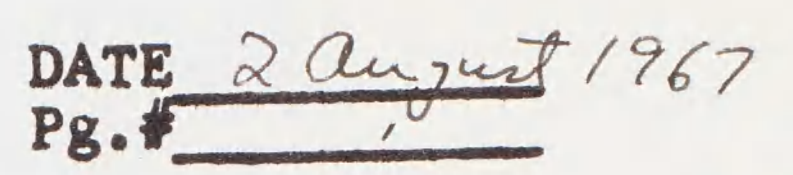


time	species	#	dir.	hgt.	remarks	loc.
1500					3 yin	
1600					Leave.	
1815					Begin	
1743	Shadblow	1	0			
1815					End	

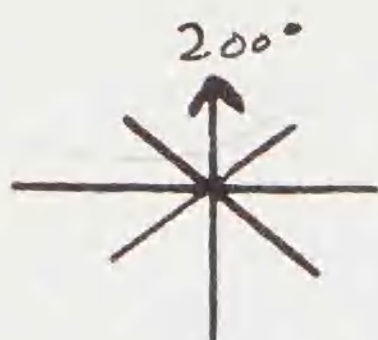


DATE 1 August 1967
Pg. # 1

time	species	#	dir.	hgt.	remarks	loc.
1130					Begin	
1220	Red f Booby	1	NE		adult Gray phase	
1230					Leave	
1330					Resume	
1350	Sooty Tern	1	SE			
1432	Red f Booby	2	NE		adults - white phase + gray phase	
1442	tern sp	2	⊙			
FF 1500	tern sp	10 ± 2			feeding	
	Booby sp	3				
1510	tern sp	2	⊙			
FF 1525	Sooty? Tern	15 ± 2			feeding	
	Booby sp	3	⊙			
1530					Leave	
1730					Begin	
1808	Sooty? Tern	1	W			
1830					Leave Obs.	



time	species	#	dir.	hgt.	remarks	loc.
1000					Begin obs.	
1002	Sooty Tern	2	E			
1004	Sooty Tern	2	E			
1020	Sooty Tern	1	S			
1025	Sooty Tern	2	⊙			
1030	Sooty Tern	3	SW			
1040	Sooty Tern	2	⊙			
1100					Case.	



EASTROPAC

DATE 7 August 1967
Pg. # 1

Day 1

time	species	#	dir.	hgt.	remarks	loc.
0615					Sunrise Begin obs	
0635	O. Tethys	5			Following ship	
0635	Black Storm Pet	5				
0636	Brown Booby	1				
0650	Brown Booby	1				
0705	Pom. Jaeger	1			light phase Worn plumage	
0718	O. Tethys	1	0			
0719	Br. Booby	2	W		1 subadult	
0719	Swallow	1	0			
0728	BL Storm Pet	1			following ship	
0740	Storm Petrel	2	0			
0743	Br. Booby	1	0		adult	
0744	O. Tethys	2	0			
0750						
0752	Bird	1	0		% 220°	
0758	BL Storm Pet	1				
0810	O. Tethys	3	0			
0813	O. Tethys	3			following ship	
0818	Br Booby	1	0		Subadult.	
0820	O. Tethys	2	0			
0820	Shorebird	1				
0831	Black Tern	2	W		winter plumage	
0831	N. Phalarope	1	W		winter plumage	
0836	BL Storm Pet	3	0			
0844	Tern sp	2	E			
0847	BL Tern	1			on log Winter Plumage	
0852	O. Tethys	1	0			
0855	Sabine's Gull	1			winter plumage	
0923	Br. Pelican	1			on H20 Immature	
0935	Tern sp	1	E			
0936	Brown Booby	1	"		Immature	
0940					% 240°	
0945	Frigate sp	2	0			
0952	Comm Noddy	3	0			
0958	Comm Noddy	3	E			
1000	Cattle Egret	1	NW			
1001	Comm Noddy	1	E			
1010	Comm Noddy	2	E			
1012	Sooty Tern	1	SW		Coarse	
1015						
1200					Resume Obs c 250°	
1202					G Spotted Dolphin.	

O. Tethys - 17
BLST - 10
BB - 7
PT - 1

Swallow - 1

Storm - 2

Bird - 1

Shore - 1

BTern - 3

NorthP - 1

Tern - 4

Subadult - 1

Br Pelican - 1

Frigate - 2

ComT - 9

Cattle Eg - 1

62



DATE 7 August 1967
Pg. # 2

	time	species	#	dir.	hgt.	remarks	loc.
	1205	O. Tethys	1	☉			
	1205	BL Storm Pet	1			following ship	
	1213					90 270°	
	1215	O. Tethys	2	☉			
	1216	Com Noddy	3	W			
	1220	Sooty Tern	2	S			
	1220	Com Noddy	2	S			
	1220	BL Tern	2	☉		winter plumage	
	1225					2 Turtles 3' long	
	1226	Com Noddy	3	SW			
	1226	tern sp	3	☉			
	1229	C. Noddy	2	SW			
	1230	Br Booby	1			Riding on Turtle (not same as above)	
TF	1235	Com. Noddy	12	SW		loosely organized	
5F	1248	O. tethys	11			sitting on H ₂ O	
	1248	Frigate sp	1			subadult	
	1250	Com Noddy	3	SW			
	1254	Mag Frigate	1	☉		adult female	
	1259	O. Tethys	2	☉			
	1259	Br. Booby	1			A ♀ on log.	
FF	1300	Com Noddy	9	☉		feeding	
	1310	O. tethys	1	☉			
	1310	BL Storm Pet	1	☉			
	1320	O. Tethys	3	☉			
MF	1323	O. tethys	70	☉			
	1327	BL Tern	1	☉		winter dress	
	1328	BL Tern	1	☉		breeding plumage.	
	1335	BL Tern	1	☉		winter plumage.	
	1339	Br-winter Tern	1	W			
	1348	O. Tethys	1	☉			
	1400	O. Tethys	1	☉			
	1403	tern sp	1	-			
	1404					4 Porpoises	
	1406	frigate	1	☉			
	1415	BL Tern	1	S		Winter plumage	
	1416	Com Noddy	1	S			
	1423	O. tethys	2	☉			
	1428	Comm Noddy	2	S			
	1433	C. Noddy	1	S			
	1434	Mag Frigate	1	S		Ad ♀	
FF	1445	Br Booby	1	☉		Some feeding	
		Com Noddy	24	☉			

O. Tethys - 34
BL SP - 2
CNT - 62
tern - 6
BL Tern - 6
BB - 3
Frigate - 2
Mag F - 2
Br-winter - 1

22
16
10

118

91
24
118



DATE 7 August 1967
Pg. # 3

	time	species	#	dir.	hgt.	remarks	loc.
FF	1500	Com Noddy	15			same feeding	
	1501	O. tethys	2	o			
	1510	G. tethys	4	o			
FF	1515	Com Noddy	8	o		same feeding	
	1517	O. Tethys	3	o			
	1518	Nan Phala	4			winter plum on 1/20	
	1519	Am. Phala ^{Mary} Sh	1			feeding	
	1519	Bla Tern	4			winter plumage.	
TF	1525	C. Noddy	8	SE			
TF	1527	C. Noddy	5	S			
	1529					3 Trutles 3' long	
	1530					leave	
	1730					resume	
	1735	O. tethys	2	o			
	1740	O tethys	1	o			
	1745	Br Booby	1	o			
	1800					Leave Observations.	

CNT-36

Otethys-12

N Phal 4

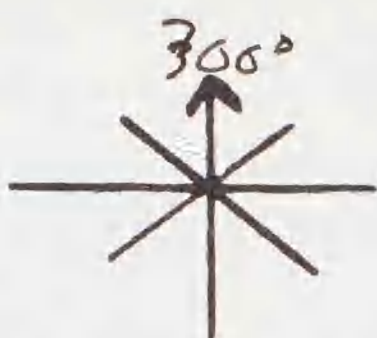
Anker-1

BTern-4

BB-1

58

102
118
180
58
238



DATE 8 August 1967
Pg. # 1

time	species	#	dir.	hgt.	remarks	loc.
0630					Begin Obs. Land on right	
0635	O. Tethys	1	e			
0640	O. Tethys	1	e			
0644	Tern sp	1	e			
0649	Tern sp	2				
0650	BL Tern	1			winter plumage	
0651	Br. Booby	1				
0655	Shear	1			on H ₂ O	
0656	BL Storm Pet	1			following ship.	
0658	Br Booby	1				
0702	Br Booby	2				
0704	O. tethys	1				
0706	O. tethys	4			Following ship	
0715	C. Noddy	1				
0716	Br (col) Brown	1			Ad ♂ on log.	
0725	O. tethys	2				
0735	BL Storm Pet	1			Following ship	
0740	Manx Shearwater	1	e			
0744	Tern sp	1				
0745	Com Noddy	1				
0747	Com Noddy	3				
0748	Com Noddy	3				
0754	Com Noddy	4				
0757	Com Noddy	2			one Immature.	
0802	O. tethys	2	e			
0809	Com Noddy	3				
0809					Turtle 15"	
0814	Br Booby	1				
0815	Com Noddy	1				
0818	Manx Shearwater	1				
0827	Com Noddy	3				
FF 0835	Brown Booby	12			feeding distant	
	Com Noddy	20				
SF 0838	Com Noddy	16			searching	
SF 0845	Com Noddy	20			searching	
0848	Com Noddy	2				
0848	BL Tern	1			winter plumage	
0848	O. Tethys	2	e			
0850	BL Tern	2			winter plumage	
0850	Com Noddy	3				

O. tethys - 13

Tern - 4

BL Tern - 4

BB - 18

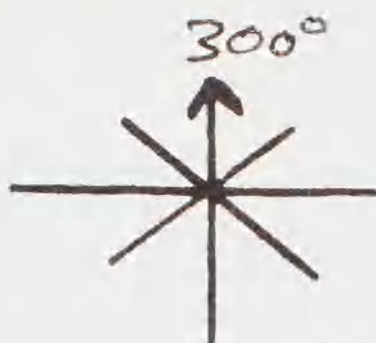
~~BB~~ - 1

BL SP - 2

CNT - 82

Ad - 2

126



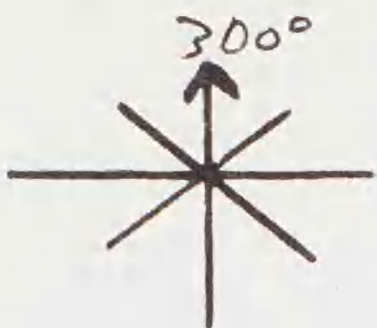
DATE 8 August 1967
Pg. # 2

time	species	#	dir.	hgt.	remarks	loc.
0855					Two Turtles clasp.	126
0900	Br. Booby	1				
0900	O. Tethys	3				276
0901	Bl. Storm Pet	1				5
0902	Bl. Storm Pet	1				
F 0903	O. Tethys	300 ± 100			Feeding? Sighting on the O in dense clump	
F 0908	O. Tethys	200 ± 50			ditto above	
0908	Nor. Phalarope	3				
0915	O. Tethys	3			winter plumage	
0916	N. Phalarope	3				
0918	Com. Noddy	1				
0920	Sabine's Gull	2			adult winter plumage.	BB - 6
0927	C. Noddy	1				O. Tethys - 526
0929	R. B. Tropic	1				BO SP - 4
0936	Frigate	2				W. Phalar - 6
0936	O. Tethys	2				ENT - 2
0936					50 ± 10 Porpoises	Sabine - 2
0945	Br. Booby	1				R. BT - 1
0950					Turtle (1)	
FF 0955	O. Tethys	10			feeding.	frig 2
1000	Bl. Storm Pet	2			Clear Obs.	tern - 1
1010	Bl. Storm Pet	2				B. tern - 1
1010	O. Tethys	1				Mag F - 1
1012					2 Turtles copulating	bird - 2
1012	O. Tethys	3				Pink Foot - 2
1020	O. Tethys	1				Red - 1
1021	Br. Booby	1			adult	
1026	tern sp	1				
1028	Bl. Tern	1			winter plumage	
1028	O. Tethys	1				
1030					Clear Obs	
1330					Resume Obs.	557
1334	Mag Frigate	1			adult female.	
1343	Birds	2				
1344	O. Tethys	1				
1347	Br. Booby	3				
1352	Pink Foot Sh	2			01/20	
1355	Mag. Frigate	1				
1356	O. Tethys	1				



DATE 8 August 1967
Pg. # 3

	time	species	#	dir.	hgt.	remarks	loc.
F	1400	Col. Booby	20	0±25		90% adults rest? / immature	
	↓	Wedge-tail	3			light phase - light edgings on back feathers	
	1415	Black Tern	1			winter plumage	
		Can Noddy	40±40			Feeding when it seen then	
		Pink-foot	2			resting on H ₂ O.	
		Manx	1				
	1416	Sabine's Gull	1				
	1423	O. Tethys	2				
	1428	frigate	1				
	1429	O. Tethys	4				
	1435	Manx Black Sh	2			Dark underwing - light white mottling Engaged in courtship flight	
	1520	Br Booby	2				
	1525	O. Tethys	2				
	1531	Br Booby	2				
	1536	Manx Black Sh	2			joined other two - 1000 m altitude / 800	
	1558	Whimbrel	2				BB - 207
	1608	Wedgetail Sh	1			light phase.	WTS - 5
S F	1625	O. Tethys	12			Scamling.	291
	1630					Coarse	559
	1730					Reserve	126
	1733	Storm Pet	1				174
	1742	O. Tethys	1				
	1745	Sabine Gull	1				
	1749	Wedgetail	1			light phase.	Adel - 5
	1753	Col. Booby	1			ad. ♂	Sabine 2
	1801	Phalarope	3			on H ₂ O.	O Tethys - 21
	1810	Tropicbird	1				frigate - 1
	1825	Br Booby	2				Whimbrel - 2
	1830					Coarse Observations	Storm - 1
							Phal - 3
							Tropic 1
							291



DATE 9 August 1967
Pg. # 1

time	species	#	dir.	hgt.	remarks	loc.
0800					Begin obs Overcast No land in sight	
0801	Shear-Pet	1				
0802	O. tethys	1				
0806	O. tethys	2				
0814	RB Tropic	1			Subadult.	
0829	O. tethys	1				
0839	Bird	1				
0925	O. tethys	4			following ship	
0930	R-B Tropic	1			adult	
0932						
0935	O. tethys	2			Fish school (12" jumping) 50' seen No assoc. birds.	
0936	Wedgetail	1			following ship	
0957	Red Phalarope	1			Intermediate phase.	
1003	Br Booby	2			on H ₂ O Winter Plumage	
1008	Br Booby	1			adult	
1008	O. Tethys	1				
1033	O. Tethys	1				
1050	Br Booby	2				
1052	O. Tethys	6			following ship Total 12	
TF 1059	Whimbrel	5	E			
1110	BL-Face Booby	1			Immature	
1115						
1300					Leave Observations.	
1325	O. Tethys	1			Resume	
MF 1333	O. tethys	10			Milling.	
1345	R-Bil Tropic	1				
1353	Br Booby	1				
1410	Br Booby	1			adult female.	
1415	Red-foot B	1			2 Pseudorca?	
1443					Imm.	
1444	O. Tethys	4			Turtle	
1452	Red-foot B	2			on H ₂ O compared to dark dark legs	
1520	Puffins O. tethys	2				
1532					2 Turtles copulating.	
1549	O. Tethys	4			in log.	
1629	BL-Face Booby	2			Leave.	
1630						
1715					Resume	
1720					Turtle (1)	
1738	BL Shear-Pet	1			following ship	
1750	Shear-Pet	1				
1815	Wedgetail	1			light phase	
1830					Leave Obs.	

S-P-2
O. tethys - 39
RBTB - 3
Bird - 1
WIS - 2

Puff - 2
Red B - 1
BB - 7
Whim - 5
RFB - 3
RFB - 1
BL Shear - 1

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EASTROPAC

DATE 10 August 1967

Pg. # 1

	time	species	#	dir.	hgt.	remarks	loc.
	0700					Begin	
	0701	Manx Shearwater	1				
	0710	frigate	1				
	0725	Bl-fac Booby	1			Immature	
	0728	Manx Shearwater	2				
	0729	Manx Frigate	1			no other following ship	
	0745	Manx Shearwater	1			adult male.	
	0748	Bl-fac Booby	2			no other until 0800	
	0748	frigate	1			adults <u>granti</u> ? orange bill	
	0749	tern	2				
	0750	Red f Booby	1			Immature	
	0759	shear Pet	1			30± <i>Stenella graffmani</i>	
	0806	B. Face Booby	1			adult + <u>granti</u> ?	
TF	0817	Na Phalarope	6	N			
	0818	Brewing? Tern	1				
	0825	Birds	3			15± <i>S. graffmani</i>	
	0827						
	0833	B-Face Booby	2				
	0840	Phalarope	2				
	0848	B-fac Booby	1				
	0852	Phalarope	3				
	0853	frigate	1				
	0853	B-f Booby	1			adult	
	0857	Mag Frigate	1			adult male.	
	0901	Br Booby	1			Immature	
TF	0903	Phalarope	7	N			
	0904	Phalarope	4	N			
	0913	Br Pelican	1				
TF	0915	Phalarope	11	N			
	0915	BL Storm Pet	1				
	0920	Mag Frigate	2	o		adult female	
	0924	frigate	4				
	0934	Mag. Frigate	1			ad. ♂	
	0940					Enter new water region to Blue-Green	
	0943	Booby sp	1				
	0945	frigate	2				
	1003	Mag Frigate	2			♂ + ♀	
	1008	Can? Tern	1				
	1011	Brewing Tern	1				
	1018	Willet	1				
	1018	frigate	1				
	1020	Br Pelican	3			adult + 1 imm.	

Manx 4

frig 10

BFB -8

Mag 7

tern 2

AFB 1

S-P 1

North 6

Brewing -2

Bird 3

pod 27

BB 1

Pelican 4

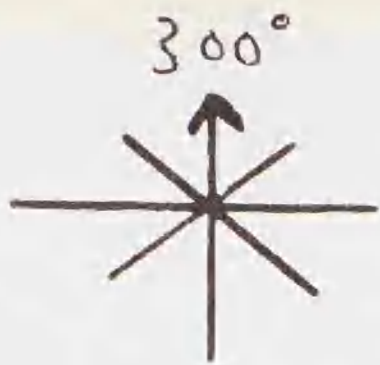
BLSP 1

Booby 1

Willet -1

Willet -1

80



DATE 10 August 1967
Pg. # 2

	time	species	#	dir.	hgt.	remarks	loc.
TF	4031	Shorebird	7	NE			
	1037	Mag Frig	1	e		ad ♂	
	1038	frigate	4	e			
	1043	Br Fac Booby	1			Imm	
	1043	Br Pelican	1			Imm	
	1055	frigate	2	e			
	1058	Mag Frigate	1			ad ♂	
	1100						
	1400					Leave Basin	
TF	1405	Br Pelican	8	w			
F	1414	Phalarope	7	e			
	1423	frigate	4	e			
	1425	Sooty Shear	1				
	1430	R-f Booby	1			Imm on H20	
	1439	Mag Frigate	1			adult male	
	1450	frigate	2	e			
	1455	Mag Frigate	4			3 ♀ 1 subadult	
	1456	frigate	3				
	1510	Phalarope	3				
	1520	Br Booby	1			Immature	
	1530	Tem sp	2				
	1540	Phalarope	3				
	1545	frigate	1				
TF	1551	Sabine's Gull	8	S	150'		
	1558	Phalarope	3			on H20	
	1608	Shorebird	1	S			
	1615	Bl-face Boob	1			Immature	
	1620					20-55 S. <i>pyrrhuloxia</i> incl young	
	1628	Phalarope	3				
	1630	Booby sp	2			Imm	
	1705+730						
	1742	Tem sp	1	S			
	1745	Mag Frigate	1			adult female	
TF	1757	Phalarope	5	S			
	1830					Leave	

Shore - 7

Mag Frig 8

Frig 16

BB 2

Pelican 9

Phal 19

JS 1

RFB 1

BB 1

Tern 3

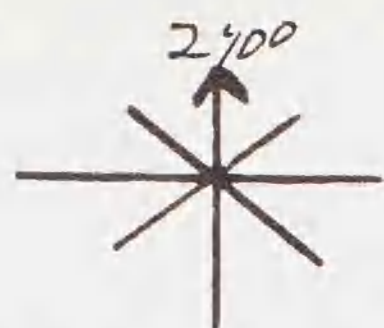
Sabine - 8

Booby 2

Mar Phalar 5

83

67
16
83



DATE 12 August 1967
Pg. # 1

	time	species	#	dir.	hgt.	remarks	loc.
	1500					Begin	
	1505	Br Booby	1			Imm	
	1510	Br Booby	1			Imm	
	1515	Br Booby	1			Imm	
	1515						
	1527	Phalarope	3			35±5 S. griffithianii some young	
	1527	Tern	1			following ship for 3 min	
	1535	Mag Frigate	1			ad ♀	
	1540	Br Booby	2			adult.	BB-57
	1543	Br. Booby	1			imm	Phala- 8
	1547	Br. Booby	2			immature.	Tern- 2
	1503	Br Booby	2			adult.	Mag- 1
	1605	Br. Booby	2			adult	
	1605	Tern Black	2			winter plumage	
	1608	BL Tern	2			Breeding plumage	
	1610	Br Booby	2			adult.	
	1615	Br Booby	2			adult.	
TF	1615	Phalarope	5	0			
	1620	Brown Booby	3			adult	
	1628	frigate	1			subadult.	
	1635	Br Booby	1			immature	
	1640	Br Booby	2				
	1654	tern	1	-			
	1654	frigate	2	0			
	1700					cease.	
	1730					Resume	
FF	1740	BL Tern	20±2			feeding	
		Antarctic Shear	10±2				
FF	1750	Magn Brown Bod	12			Some feeding distant	
		BL Tern	40±5				
FF	1805	Br. Booby	15±2			feeding	
		Magn Shear	20±5				
		BL Tern	40±5				
		Sabine Gull	1				
FF	1815	Magn Shear	25±5				
		Brown Booby	8				
FF	1820	BL Tern	30±5				
		R. F. Booby	25±5				
	1822	North Phala	2				
	1830					cease	

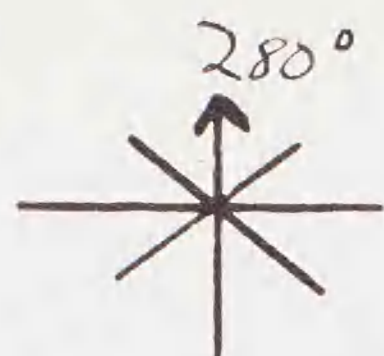
98
141
289

BB-57
Phala- 8
Tern- 2
Mag- 1
BL Tern- 134
frig- 3
Magn- 80
Sabine- 1
RFB- 1
North- 2
289

1500 - 15°32' 95°25'

1700 - 15°50'N 95°40'

1800 -



DATE 13 August 1964
Pg. # 1

	time	species	#	dir.	hgt.	remarks	loc.
	0730					Bain	
	0732	Phalarope	3	S			Phala-11
	0733	Phalarope	2	S			Manx 33
	0734	Manx Shear	1				
TF	0736	Shadbird	10	S			Shore - 10
	0738	Sabine's Gull	1	S		not Phala.	Sabine - 2
	0740	Manx Shear	1				
MF	0745	Red-foot Booby	7			millen	IFB - 11
	0747	Br Booby	3	S		1 Ad 2 Imm	BB - 12
	0748	Manx Shear	2	S			BLT - 4
	0749	BL Tern	2			winter plum. on leg	North - 13
	0755	BL Tern	2			winter plumage.	BO SP - 2
	0759	Br Booby	2				Com Tern - 1
	0803	Manx Shear	4	S			BFB - 2
	0803	North Phala	1	S			
	0809	Manx Shear	4			feeding sitting on H2O - putting head under	
	0810	BL Storm Pet	1				
	0812	Br Booby	1			Imm.	
		Manx Shear	1				
	0815	Com? Tern	1	S			Booby - 5
	0817	Sabine's Gull	1	S			106
	0818	BL Storm Pet	1				
	0833	Manx Shear	2				
FF	0839	Na Phalarope	12				
TF	0840	Phalarope	5	S		on H2O feeding Near floating debris	
	0845	Manx Shear	1				
	0847	Phalarope	1				
	0900					stop	
	0903	BL-face Booby	1			adult orange bill	
	0904	Br Booby	1			immature	
	0921	Manx Shear	1				
	0929	Red-foot Booby	1				
	0929	Br Booby	4			subadult	
	0930						
	1300					leaving	
MF	1301	Manx Shear	6			Remains	
	1305	Manx Shear	1			Milling	
MF	1307	Booby	5			Milling	
	1317	Manx Shear	1			on H2O	
	1318	Red-foot Booby	1				
FF	1320	Manx Shear	8			feeding	
	1322	Red-foot Booby	2				
	1323	BL-face Booby	1				
	1325	Br Booby	1			adult	



DATE 13 August 1967
Pg. # 2

	time	species	#	dir.	hgt.	remarks	loc.
	1325						
	1327					Two turtles regurgitating	
FF	1329	Tern	3			25±5 Delphinids prob <i>Stenella</i>	
		Bl./ace Booby	2			actively feeding	
		Brown Booby	5				
		R-f Booby	5				
		Booby sp	10				
F	1335	Bl Booby	7			on H2O Remnants of FF.	
		Manx Shear	12				
	1341	Manx Shear	1				
	1342					Two one Turtles	
	1344	Manx Shear	3				
	1344	R-F Booby	2				
	1345	BL Tern	3			feeding	
	1345	Bl-Fac Booby	1			Subadult on Turtles	
	1350	BL Tern	1				
	1351	Na. Phala	2				
TF	1355	Red-F Booby	5	W			
	1355	BL Storm Pet	1				
	1402	Shear	1				
	1403	BL Tern	2				
TF	1415	Phalarope	7	E			
	1416	Manx Shear	1				
F	1419	Br Booby	20			on logs	
		Bl-face Booby	3				
	1425	Sabine's Gull	1	S			
	1450	Phalarope	2	S			
	1450	Manx Shear	1				
	1500					Levee.	
	1730					Remore	
FF	1731	Br Booby	12			feeding	
		BL Tern	30				
	1733	Br Booby	1			on log	
	1735	Br Booby	1				
	1736	BL Tern	4			ad on log	
	1737	Br Booby	3				
		Red-F Booby	1				
	1740	Na Phalarope	2				
	1745	R-f Booby	2				
	1746	BL Storm Pet	1				

Tern-3

BrB-6

BB-49

RFB-15

booby-10

Manx-18

BL Tern-40

North-4

BL SP-2

Shear-1

Phala-9

Sabine-1

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SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG -- E



DATE 13 August 1967
Pg. # 3

time	species	#	dir.	hgt.	remarks	loc.
1755	Para. Jaeger	2				
	BL Tern	2			flight phase changing	
1756	Phalarope	2	e			
1800	Br Booby	2			in log Ad + Im	
1801	Comm? Tern	2				Para - 2
1801	Red-f Booby	2				BLT - 2
1830					Clear.	Phal - 2
						BB - 2
						ComT - 2
						RFB - 2
						<u>12</u>

0700 - 15° 53' N 98° 12' W

0800 - 15° 57' N 98° 23' W

0900 -

1200 - 16° 07' N 98° 40' W

1400 - 16° 14' N 98° 59' W

1500 -

1600 - 16° 24' N 99° 18' W

1700 -



DATE 16 August 1967
Pg. # 1

Acrop To 10°N

	time	species	#	dir.	hgt.	remarks	loc.
	1030					Begin	
	1040	Red-F Booby	1			on log	Many - 7
	1040	Bl Tern	2			on log	RFB - 1
	1040	Manx Shear	1				Bl Tern - 13
	1045	Bl. Tern	2				Browing - 4
	1055	Br-wing Tern	4				Booby - 1
SF	1108	Bl Tern	8			N. King.	Adult - 1
	1127	Booby	1			n Turtle	
	1119	Manx Shear	2				
		Townsend	1			Considerably smaller than P. puffin	
	1124	Bl Tern	1	S		possibly auricularis?	
	1124	Sabine's Gull	1	S		7 breeding plumage	Sabine - 2
	1150					Breeding plumage	
	1159	Sabine's Gull	1			2 Turtle.	Shore - 7
TF	1208	Shadbird	7	S		on H ₂ O.	BB - 9
	1208	Manx Shear	1				Ocean - 1
	1221	Manx Shear	1				tern - 3
	1236	Br Booby	1			adult	
	1236	Oceanodroma	1				
	1237					one Turtle	
TF	1237	tern sp	3				Phala - 18
	1238	Phalarope	5	S			North - 9
	1245	Br Booby	3				S-P - 1
	1245	Phalarope	1				juv - 1
	1250	North. Phalarope	2				
	1255	North Phalarope	4				
	1256	North Phala	3				
	1259						78
F	1302	Phalarope	8			one turtle prob.	
	1305	Phalarope	2			on H ₂ O prob. feeding	
	1305					Turtle ①	
	1315	Shear. Pet	1				
	1320	Br Booby	2				
	1324	Manx Shear	1				
	1337	Br Booby	1			Immature	4-30
	1342					2 Turtles	1-36
	1346	Jaeger sp	1				5-66
	1347	Manx Shear	1				
	1356					2 Turtle	
	1406	Br Booby	1			adult	
	1408					Turtle 1	
	1408	Phalarope	1				
	1415	Br Booby	1			or white head.	

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SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG -- E

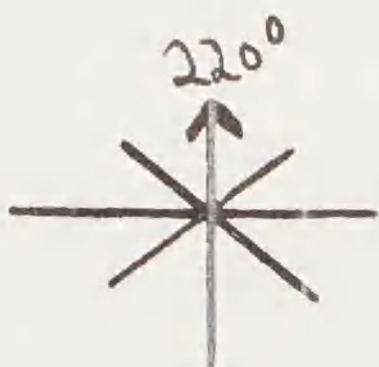


DATE 16 August 1967
Pg. # 2

time	species	#	dir.	hgt.	remarks	loc.
1405					Turtle ①	
1425	Rel-F Booby	1			subadult	
1434					Turtle ①	
1440	Booby	1			on the Turtle (new spec)	RF B - 2
1441					Turtle 6"	Booby - 2
1443					Turtle 20"	Phala - 19
1443	Phalarope	2				BB - 19
1451	Phalarope	1				jac - 1
1451	Br Booby	1				
1451					One Delphid seen only briefly	Ocean - 1
1455					Turtle (1)	North - 8
1455	Phalarope	4				
1500					Stop for Station lease Obs	May 2
1730					Resume Obs Still on Station.	BOSP - 1
1737	Booby	1				Storm - 1
1746	Phalarope	2				
1753	jaeger sp	1				
1758	Phalarope	2				
1807	Oceanodroma	1				
1813	Br Booby	1			adult.	
RF 1840	North Phala.	8				
TF 1842	Br Booby	8	E		feeding	
1850					Underway again	
1851	Manx Shear	1				
1855	R-Foot Boob	1				
1856	B/S Storm Pet	1				
1859	Storm Petrel	1				
1900	Br Booby	3				
	Manx Shear	1				
1902	Br Booby	3				
1904	Br Booby	3				
1906					Sunset Obs.	

1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100.

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SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG -- E

DATE 17 August 1967
Pg. # 1

| time | species | # | dir. | hgt. | remarks | loc. |
|------|------------------------|---|------|------|---|-----------|
| 0630 | | | | | S. Booby ^{Obs. on Station.} | |
| 0635 | Red-F Booby | 3 | | | all RFB are imm → Subadult. | |
| 0637 | Red-F Booby | 2 | | | | |
| 0644 | Red-F Booby | 1 | | | | |
| 0645 | Kerm. Pet | 1 | | | Dark light phase | RFB-19 |
| 0646 | Wedgetail | 2 | | | Light | Kerm-3 |
| 0647 | Manx Shear | 1 | | | prob. <u>auricularis</u> | WIS-4 |
| 0648 | Red-F Booby | 4 | | | | Manx-6 |
| 0655 | Red-F Booby | 3 | | | | Jaeger-2 |
| 0708 | Manx Shear. | 1 | | | | |
| 0717 | Jaeger sp | 1 | | | | |
| 0753 | | | | | Underway. | Phal 8 |
| 0813 | Manx Shear | 2 | | | | Bad-1 |
| 0814 | Kerm Pet | 1 | | | dark | BFB 1 |
| 0815 | Phalarope | 1 | | | | S-P-R |
| 0815 | Bind | 1 | | | | Redbill-1 |
| 0822 | Phalarope | 2 | S | | dark | Leach-3 |
| 0823 | Kerm Pet | 1 | | | | Booby 1 |
| 0826 | Phalarope | 1 | S | | | 51 |
| 0833 | Phalarope | 2 | S | | | |
| 0834 | R-F Booby | 1 | | | Imm. | |
| 0835 | Phalarope | 1 | | | | |
| 0913 | Manx Shear | 1 | | | | |
| 0917 | Bl-face Boob | 1 | | | Ad Orange bill | |
| 0919 | Manx Shear | 1 | | | | |
| 0926 | Red-F Booby | 1 | | | | |
| 0927 | Shear-Pet | 1 | | | | |
| 0934 | R-Bill Tropic | 1 | | | | |
| 0947 | Shear Pet | 1 | | | | |
| 0955 | Jaeger | 1 | | | | |
| 0955 | R Foot Booby | 1 | | | | |
| 0956 | R Foot B | 3 | | | | |
| 0957 | Wedgetail | 2 | | | Right | |
| 1000 | | | | | | |
| 1145 | Red-F Booby | | | | Stop for station. | |
| 1155 | Red-F Booby | 3 | | | Resume watch - The group of RFB is again | |
| 1215 | Red-F Booby | | | | present Assume to be same as on 1st station | |
| 1215 | Phalarope | 1 | | | Start Newton Tow SK13 | |
| 1218 | Booby | 1 | | | Ad Orange bill | |

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SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG -- E

DATE 17 August 1967
Pg. # 2

| time | species | # | dir. | hgt. | remarks | loc. |
|---------|--------------------------------------|------|------|------|---------------------------|----------|
| 1237 | Bl-face Booby | 1 | | | Imm | |
| 1245 | Empidonax | 1 | | | handed in ship collected | |
| 1257 | Bl-face Booby | 2 | | | adult. | |
| 1300 | Phalarope | 1 | | | | BFB-4 |
| 1310 | Phalarope type | 2 | | | | Empid-1 |
| 1313 | Bl-face Booby | 1 | | | Int. spec. BrSA | Phal-3 |
| 1318 | | | | | Underway. | Leach 18 |
| 1323 | Phalarope | 1 | | | | Leach-2 |
| 1323 | Oceanodroma leucorhoa? | 4 | | | | Mary-7 |
| 1336 | Leach's SP | 1 | | | Bl line seen. | BFB-2 |
| 1339 | Mary Shear | 3 | | | | Mary-7 |
| 1343 | Leach's S.P. | 1 | | | Bl line seen | BFB-2 |
| 1348 | Br Booby. | 1 | | | or white head | Nuth 14 |
| 5F 1401 | Leach's Type | 5 | | | Imm. | Rell 1 |
| 1401 | Br Booby. | 1 | | | | S-P 1 |
| 1406 | Leach's Type | 3 | | | | Pom-3 |
| F 1416 | Na Phala. | 14 | | | on H2O | Tropic-1 |
| 1435 | Red-bill Tropic | 1 | | | on H2O | Pex 4 |
| 1436 | Phalarope | 1 | | | | Red P-1 |
| 1444 | Shear-Pet | 1 | | | | Red 2 |
| 1445 | Leach's Type | 2 | | | | 5FR 15 |
| 1502 | Mary Shear | 1 | | | | |
| 1502 | Leach's Type | 2 | | | | |
| 1503 | Pom Jaeger | 1 | | | Right phase. | |
| 1510 | Tropic bird | 1 | | | | |
| 1517 | P. externa | 1 | | | | |
| 1520 | Phalarope | 1 | | | | |
| F 1525 | RFB | 1 | | | | |
| ↓
30 | 5F Petrel | 1552 | | | Some feeding Fish jumping | |
| | Mary Shear | 3 | | | | |
| | Pom Jaeger | 2 | | | Light | |
| 1532 | | | | | Turtle | |
| 1535 | P. externa | 3 | | | | |
| 1545 | | | | | Stop for Station | |
| 1715 | | | | | Resume obs on STA. | |
| 1717 | R-F Booby | 1 | | | Subadult | |

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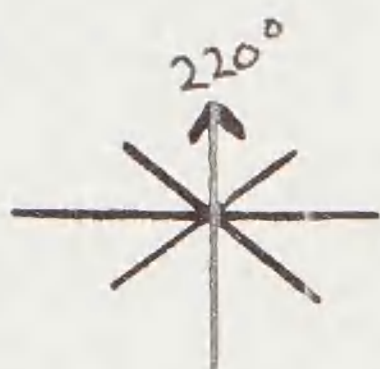
SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG -- E



DATE 17 August 1967
Pg. # 3

| time | species | # | dir. | hgt. | remarks | loc. |
|----------|---------------|---|------|------|--------------|--------|
| 1735 | Br Booby | 2 | | | adult | BB-2 |
| 1743 | JF Petrel | 1 | | | | JFP-4 |
| 1744 | Phalarope | 1 | | | | Phal-1 |
| T F 1752 | Bl-Face Booby | 5 | SW | | Imm | BFB-5 |
| 1803 | Jaeger | 3 | S | | | jae 7 |
| 1810 | | | | | Underway. | FP-2 |
| 1820 | JF Petrel | 3 | Ø | | | Pex-2 |
| 1836 | Term Pet | 1 | | | | Max 4 |
| 1836 | P. externa | 2 | | | Intermediate | S-P-6 |
| 1838 | Manx Shear | 1 | | | | WTS-2 |
| 1838 | Shear-Pet | 2 | | | | 35 |
| 1845 | Manx Shear | 1 | | | | |
| 1850 | Shear-Pet | 4 | | | | |
| 1851 | Term Pet | 1 | | | dark. | |
| 1851 | Wedgetail | 1 | | | dark | |
| 1856 | Wedgetail | 1 | | | light | |
| 1856 | Jaeger | 4 | | | | |
| 1903 | Manx Shear | 2 | | | | |
| 1908 | | | | | Sunset | |

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SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG -- E

DATE 18 August 1967
Pg. # 1

| time | species | # | dir. | hgt. | remarks | loc. |
|---------|----------------------|--------|------|------|------------------------|------|
| 0600 | | | | | Bayan Obs. | |
| 0645 | JF Petrel | 1 | | | Note: all Leach's Type | |
| 0646 | P. externa | 4 | | | are now considered | |
| 0647 | P. externa | 3 | | | Oceanodroma sp | |
| 0652 | P. externa | 4 | | | FWW | |
| 0653 | Shear-Pet | 2 | | | 19 August | |
| 0654 | Jaeger | 1 | | | R-Pull - 1 | |
| 0657 | Wedgetail | 1 | | | Phal - 7 | |
| MF 0710 | P. externa | 12 | | | JFP - 78 | |
| F 0718 | JF Petrel | 5 | | | Ph - 99 | |
| 0718 | Wedgetail | 2 | | | SP - 1 | |
| 0732 | JF Petrel | 4 | | | 200 - 1 | |
| 0738 | P. externa | 2 | | | WIS - 44 | |
| 0745 | P. externa | 3 | | | Phal - 3 | |
| 0759 | P. externa | 2 | | | 239 | |
| F 0805 | P. externa | 7 | | | on H ₂ O | |
| F 0818 | P. externa | 6 | | | on H ₂ O | |
| F 0819 | P. externa | 8 | | | on H ₂ O | |
| SF 0830 | JF Petrel | 65 ± 5 | | | on H ₂ O | |
| | Wedgetail | 5 | | | on H ₂ O | |
| 0831 | Leach's Type | 1 | | | on H ₂ O | |
| F 0838 | P. externa | 15 ± 3 | | | on H ₂ O | |
| 0838 | Phalarope | 4 | | | on H ₂ O | |
| F 0848 | P. externa | 8 | | | on H ₂ O | |
| 0852 | R. Bill Tropic | 1 | | | on H ₂ O | |
| F 0855 | P. externa | 11 | | | on H ₂ O | |
| F 0858 | Wedgetail | 35 ± 5 | | | on H ₂ O | |
| F 0859 | P. externa | 6 | | | on H ₂ O | |
| 0915 | Tropicbird | 1 | | | on H ₂ O | |
| 0934 | Leach's Type | 1 | | | on H ₂ O | |
| 0935 | P. externa | 1 | | | on H ₂ O | |
| SF 0943 | P. externa | 6 | | | on H ₂ O | |
| 0943 | Phalarope | 3 | | | on H ₂ O | |
| 0952 | Shear-Pet | 2 | | | on H ₂ O | |
| 0954 | JF Petrel | 2 | | | on H ₂ O | |
| 0958 | Wedgetail | 1 | | | on H ₂ O | |
| 0959 | Red Phalarope | 1 | | | on H ₂ O | |
| 1003 | P. externa | 1 | | | on H ₂ O | |
| 1006 | JF Petrel | 1 | | | on H ₂ O | |
| 1020 | Leach's | 1 | | | on H ₂ O | |

Bayan Obs.

Note: all Leach's Type
are now considered

Oceanodroma sp

FWW

19 August

R-Pull - 1

Phal - 7

JFP - 78

Ph - 99

SP - 1

200 - 1

WIS - 44

Phal - 3

239

104

239

393

Dark Phalarope

on H₂O

Dark

on H₂O

on H₂O

on H₂O

on H₂O

on H₂O. Probably end of FF.

on H₂O

on H₂O

on H₂O

on H₂O

on H₂O

on H₂O possibly ~~Wedgetail~~ Dark Phalarope

on H₂O

on H₂O

one Red squid in bill

Dark

on H₂O

SI-MNH-958e
7-28-64

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG -- E



DATE 18 August 1967
Pg. # 2

| time | species | # | dir. | hgt. | remarks | loc. |
|---------|---------------|---|------|------|---|------|
| 1020 | R-Bell Tropic | 1 | | | | |
| 1025 | Pterodroma | 2 | | | on H ₂ O | |
| 1025 | Leach's Type | 2 | | | | |
| 1029 | Bl-F Booby | 1 | | | Imm | |
| 1030 | | | | | | |
| 1145 | | | | | Stop Cease Obs. Noon Sta | |
| 1153 | JF Petrel | 3 | 0 | | Resume. | |
| 1203 | Leach's Type | 1 | 0 | | | |
| 1212 | Wedgetail | 2 | | | dark phase. | |
| 1215 | | | | | Underway. | |
| F 1233 | JF Petrel | 5 | | | | |
| 1255 | JF Petrel | 2 | | | on H ₂ O | |
| 1257 | Wedgetail | 1 | | | DARK | |
| 1303 | Leach's Type | 2 | | | | |
| 1308 | Wedgetail | 1 | | | dark | |
| 1308 | JF Petrel | 1 | | | dark | |
| 1317 | Wedgetail | 1 | | | dark | |
| 1320 | Leach's Type | 1 | | | | |
| 1326 | JF Petrel | 1 | | | dark | |
| 1330 | Wedgetail | 4 | | | dark | |
| 1340 | Wedgetails | 2 | | | dark | |
| 1345 | | | | | 10 Rizzo's? Dolphins 1st seen briefly | |
| 1350 | Leach's Type | 1 | | | breaking surface only white water seen. When some | |
| 1353 | Phalarope | 1 | | | distance away breaking surface seemed to push | |
| 1400 | Leach's SP | 1 | | | dark rump. up with blunt snout pushing | |
| 1413 | Wedgetail | 3 | | | H ₂ O over head then down. Head | |
| 1416 | Oceanodroma | 1 | | | may have been white but too far to see | |
| SF 1420 | Wedgetails | 5 | | | Could have been H ₂ O. High d. f. | |
| 1422 | JF Petrel | 2 | 0 | | | |
| 1429 | MANA Shear | 1 | | | | |
| 1433 | JF Petrel | 1 | | | | |
| F 1437 | Wedgetail | 5 | | | dark some feeding | |
| | P. externa | 6 | | | | |
| 1440 | O. Tethys? | 1 | | | | |
| SF 1447 | P. externa | 6 | | | searching | |
| | Wedgetail | 3 | | | dark | |

R-Bell 1
Pter 14
JFP 15
Leach T 7
Leach's 1
Oceanod 1
O. Tethys 1
BF B-1
WTS-27
PD-1-1
MANA 1
70

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| | time | species | # | dir. | hgt. | remarks | loc. |
|----|------|--------------|----|------|------|------------------------------|---------|
| F | 1448 | Wedgetail | 5 | | | dark on H ₂ O | |
| | 1450 | Manx She | 1 | | | | |
| SF | 1450 | JF Petrel | 6 | | | | WIS-15 |
| | 1510 | JF Petrel | 1 | | | | PIP-2 |
| | 1522 | Storm Petrel | 2 | | | | May-1 |
| | 1527 | Wedgetail | 1 | | | dark | JF P-27 |
| | 1530 | JF Petrel | 1 | | | | Storm-4 |
| | 1533 | Wedgetail | 1 | | | dark | Pop-26 |
| | 1536 | Pterodroma | 3 | | | | LeT-3 |
| | 1541 | JF Petrel | 2 | | | | BFB-1 |
| | 1541 | Leach's Type | 1 | | | | Pod-1 |
| | 1545 | Phalarope | 1 | | | | RPR-3 |
| F | 1548 | P. externa | 12 | | | on H ₂ O | RFB-1 |
| | 1548 | Bl-f Booby | 1 | | | Imm. | |
| | 1548 | Wedgetail | 2 | | | dark | |
| | 1554 | Red Phala | 3 | | | | |
| | 1554 | JF Petrel | 1 | | | | |
| | 1555 | Wedgetail | 1 | | | Dark. | |
| | 1559 | Leach's Type | 1 | | | | |
| | 1600 | | | | | Stop | 84 |
| | 1715 | | | | | Resume OBS still in station. | |
| | 1720 | P. externa | 1 | | | | |
| | 1725 | P. externa | 1 | | | | |
| | 1732 | P. externa | 3 | | | | |
| | 1736 | P. externa | 1 | | | | |
| | 1736 | Red F Booby | 1 | | | 1st year. | |
| | 1737 | Storm Petrel | 1 | | | | |
| SF | 1740 | JF Petrel | 13 | | | Searching. | |
| | | Wedgetail | 5 | | | dark | |
| | 1800 | | | | | Underway | |
| | 1803 | P. externa | 3 | | | | |
| | 1816 | Storm Pet | 1 | | | | |
| | 1825 | P. externa | 1 | | | | |
| | 1830 | P. externa | 1 | | | | |
| | 1834 | Leach's Type | 1 | | | | |
| | 1837 | JF Petrel | 2 | | | | |
| | 1846 | JF Petrel | 1 | | | | |
| | 1903 | JF Petrel | 2 | | | appeared black. | |
| | 1914 | | | | | Sunset | |

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DATE 17 August 1967
Pg. # 1



| | time | species | # | dir. | hgt. | remarks | loc. |
|----|------|------------|--------|------|------|---|------|
| | 0700 | | | | | Begin obs | |
| | 0703 | P. externa | 1 | | | | |
| | 0703 | Shear Pet | 1 | | | | |
| | 0708 | Manx Shear | 1 | | | | |
| | 0708 | P. externa | 2 | | | | |
| | | Wedgetail | 1 | | | dark | |
| | 0709 | Wedgetail | 1 | | | dark | |
| | 0712 | JF Petrel | 3 | | | | |
| SF | 0715 | Pterodroma | 5 | | | | |
| F | 0718 | Wedgetail | 8 | | | on H ₂ O Dark. | |
| SF | 0725 | Pterodroma | 20 ± 5 | | | | |
| | 0726 | Pterodroma | 3 | | | | |
| | 0730 | Wedgetail | 1 | | | dark | |
| SF | 0730 | Pterodroma | 10 | | | | |
| | 0735 | Leach's SP | 1 | | | | |
| | 0735 | JF Petrel | 3 | | | DARK Rump | |
| | 0742 | Pterodroma | 3 | | | | |
| | 0743 | P. externa | 2 | | | | |
| F | 0749 | P. externa | 15 ± 3 | | | distant over fish 100's of small ones out of H ₂ O | |
| | 0749 | Wedgetail | 1 | | | DARK didn't appear to be feeding | |
| | 0750 | Pterodroma | 4 | | | | |
| | 0751 | Pterodroma | 4 | | | | |
| | 0752 | JF Petrel | 7 | | | | |
| | 0754 | Phalarope | 2 | S | | | |
| | 0755 | | | | | C ₁ 180° | |
| SF | 0758 | Wedgetail | 5 | | | dark. | |
| | | Pterodroma | 25 ± 5 | | | | |
| | 0802 | Wedgetail | 1 | | | light | |
| | 0803 | Pterodroma | 4 | | | | |
| | 0804 | Pterodroma | 4 | | | | |
| | 0804 | O. Tethys | 1 | | | | |
| MF | 0809 | Pterodroma | 12 | | | | |
| | 0809 | Wedgetail | 2 | | | dark. | |
| F | 0812 | Wedgetail | 11 | | | dark on H ₂ O | |
| | 0815 | Wedgetail | 3 | | | on H ₂ O Dark | |
| | 0823 | Pterodroma | 2 | | | | |
| | 0825 | O. Tethys | 1 | | | | |
| | 0827 | Br Booby | 1 | | | Imm | |
| | 0838 | Wedgetail | 1 | | | dark | |
| | 0839 | P. externa | 1 | | | | |

Pex - 117

S.P. - 1

BB - 1

Leach's - 1

Manx - 1

WTS - 35

JF P - 10

Phalarope - 2

Tethys - 2

170

170

122

392

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AT SEA DAILY LOG -- E

DATE 19 August 1967
Pg. # 2



| time | species | # | dir. | hgt. | remarks | loc. |
|------|-----------------------|---|------|------|---|------|
| 0840 | | | | | Enter Rain | |
| 0856 | JFPetrel | 2 | | | | |
| 0905 | | | | | Leave Rain | |
| 0913 | Wedgetail | 1 | | | dark. | |
| 0916 | Manx Sh | 1 | | | | |
| 0925 | P. externa | 1 | | | | |
| 0928 | Wedgetail | 2 | | | dark | |
| 0929 | Wedgetail | 4 | | | Dark on H ₂ O. | |
| 0937 | O. tethys | 1 | | | | |
| 0945 | O. tethys | 2 | | | Close view No black line very large broad white patch | |
| | Leach's SP | 1 | | | dark | |
| 0946 | JFPetrel | 1 | | | | |
| 1005 | JFPetrel | 2 | | | | |
| 1008 | Wedgetail | 4 | | | on H ₂ O feeding Dark | |
| 1012 | JFPetrel | 2 | | | | |
| 1025 | P. externa | 1 | | | | |
| 1026 | PI or Taliti | 1 | | | | |
| 1028 | O. tethys | 4 | | | following ship | |
| 1030 | | | | | Stop for station | |
| 1115 | | | | | Resume obs | |
| 1202 | O. Tethys | 1 | | | | |
| 1209 | | | | | | |
| 1212 | Wedgetail | 1 | | | Underway. | |
| 1217 | JFPetrel | 2 | | | dark | |
| 1233 | P. externa | 1 | | | | |
| 1234 | Red Phalar | 2 | | | | |
| 1243 | Red Phalar | 4 | | | | |
| 1253 | O. tethys | 2 | | | | |
| 1307 | Wedgetail | 1 | | | dark. | |
| | Manx Sh | 1 | | | | |
| 1313 | Wedgetail | 1 | | | dark. | |
| 1407 | Oceanodroma | 1 | | | | |
| 1413 | Shear Pet | 1 | | | | |
| 1419 | JFPetrel | 1 | | | | |
| 1421 | Manx Shear | 1 | | | | |
| 1429 | Wedgetail | 1 | | | Right. | |
| 1430 | Red Phalar | 1 | | | | |
| 1431 | Shear-Pet | 2 | | | | |

JFP - 10

WTS - 15

Manx - 3

Pex - 3

Tethys - 10

BCSP - 1

PI - 1

Red P - 7

S-P - 3

Star - 1

54

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AT SEA DAILY LOG -- E



DATE 19 August 1967
Pg. # 3

| time | species | # | dir. | hgt. | remarks | loc. |
|------|------------------------|-------|------|------|---|----------|
| 1443 | Oceanodroma | 1 | | | | |
| 1443 | Wedgetail Sh | 1 | | | Light | |
| 1444 | JF Petrel | 1 | | | | |
| 1449 | P. externa | 1 | | | | Storm-2 |
| 1449 | Wedgetail | 1 | | | Dark | SS-1 |
| 1458 | JF Petrel | 3 | | | | WTS-12 |
| 1458 | O. tethys | 1 | | | | JFP-18 |
| 1502 | Shear Pet | 4 | | | | Pop-22 |
| 1503 | JF Petrel | 2 | | | at H20 | WTS-4 |
| 1503 | Sooty Shear | 1 | | | white under | SP-4 |
| 1503 | O. tethys | 1 | | | | DDSP-4 |
| 1507 | JF Petrel | 3 | | | | Pop-13-1 |
| 1510 | JF Petrel | 2 | | | | 68 |
| 1510 | Wedgetail | 1 | | | Dark | |
| 1515 | O. tethys | 1 | | | | |
| 1528 | Bulwer's SP | 1 | | | dark | |
| 1529 | Oceanodroma | 1 | | | dark | |
| 1535 | Wedgetail Sh | 1 | | | dark | |
| 1540 | JF Petrel | 1 | | | | |
| 1558 | Wedgetail | 1 | | | Dark | |
| 1559 | JF Petrel | 1 | | | | |
| 1600 | | | | | stop for station | |
| 1725 | | | | | burne Oss | |
| 1725 | JF Petrel | 1 | | | | |
| 1730 | Wedgetail | 1 | | | dark. | |
| 1808 | | | | | Underway | |
| 1828 | P. externa | 20-22 | | | Very little feeding Fish ydashing at surface. | |
| | Wedgetail | 4 | | | Dark | |
| 1840 | BL Storm Pet | 1 | | | | |
| 1847 | P. externa | 1 | | | | |
| 1850 | JF Petrel | 2 | | | | |
| 1903 | BL Storm P | 2 | | | Big diff seen | |
| 1904 | Leach's SP | 1 | | | | |
| 1904 | O. Tethys | 1 | | | | |
| 1908 | JF Petrel | 2 | | | | |
| 1908 | Wedgetail | 2 | | | Dark. | |
| 1916 | | | | | Sunset | |

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SMITHSONIAN INSTITUTION
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DATE 20 August 1967
Pg. # 1

| time | species | # | dir. | hgt. | remarks | loc. |
|---------|-----------------|----|------|------|------------------------|------|
| 0651 | | | | | Sunrise | |
| 0710 | JFPetrel | 2 | | | | |
| 0710 | 0651 | 1 | | | | |
| 0710 | Wedgetail | 1 | | | dark | |
| F 0722 | Wedgetail | 10 | | | Dusk H20. | |
| | Pterodroma | 5 | | | | |
| 0728 | JFPetrel | 2 | | | | |
| 0730 | Phalarope | 1 | | | | |
| 0730 | P. externa | 1 | | | | |
| 0743 | P. externa | 3 | | | | |
| 0753 | Bl Storm Pet | 1 | | | | |
| 0757 | Phalarope | 2 | | | feeding | |
| 0804 | Kerm Pet | 1 | | | Inter phase | |
| 0805 | | | | | | |
| 0816 | Wedgetail | 1 | | | c. 1500 | |
| 0817 | Pterodroma | 2 | | | DARK | |
| 0825 | Audubon? Ph | 1 | | | Dark for food | |
| 0827 | JFPetrel | 2 | | | | |
| 0837 | Pterodroma | 2 | | | | |
| 0838 | JFPetrel | 4 | | | | |
| 0838 | Wedgetail | 3 | | | dark | |
| 0842 | Storm Pet | 1 | | | | |
| 0846 | Tern sp. | 1 | | | | |
| 0850 | O. Tethys | 1 | | | | |
| 0903 | Kerm Pet | 1 | | | Dark. | |
| 0905 | Bird | 1 | | | | |
| 0910 | Leach's SP | 1 | | | Bl line seen | |
| 0942 | JFPetrel | 2 | | | | |
| 0943 | Phalarope | 1 | | | feeding | |
| 0952 | Storm Pet | 3 | | | | |
| 0955 | JFPetrel | 1 | | | | |
| F 0958 | JFPetrel | 6 | | | on H2O | |
| 0959 | P. externa | 4 | | | on H2O | |
| 1018 | Wedgetail | 4 | | | dark | |
| F 1020 | Wedgetail | 12 | | | | |
| | JFPetrel | 7 | | | on H2O | |
| 1030 | P. externa | 4 | | | on H2O | |
| P 1030 | Wedgetail | 8 | | | Dark dense dump on H2O | |
| 1040 | Wedgetail | 5 | | | dark Searching | |
| SF 1040 | Shear Pet | 10 | | | | |

JFP - 26
 Pter - 5
 W.T. - 4
 P. ex - 21
 Phal - 4
 B. SP - 1
 Kerm - 2
 Audubon - 1
 Tethys - 1
 Tern - 1
 Leach - 1
 L-P - 13
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DATE 20 August 1967
Pg. # 2

| time | species | # | dir. | hgt. | remarks | loc. |
|--------|--------------|---|------|------|-----------------------|---------|
| 1042 | Wedgetail | 1 | | | Light | |
| 1050 | | | | | Stop | |
| 1145 | | | | | Resume watch station | |
| 1155 | JF Petrel | 1 | | | | |
| 1200 | Storm Pet | 4 | | | | |
| 1225 | | | | | Underway 170° | |
| 1257 | PI? Petrel | 1 | | | | |
| 1303 | P. externa | 1 | | | | WFS-5 |
| 1308 | JF Petrel | 3 | | | | PIP-1 |
| 1353 | Shear-Pet | 2 | | | | JFP-19 |
| 1400 | JF Petrel | 1 | | | | Storm-4 |
| 1418 | P. externa | 1 | | | | Pex-6 |
| 1428 | Kerm Petrel | 1 | | | Dark | S-P-3 |
| 1430 | JF Petrel | 1 | | | | Kerm-1 |
| 1439 | JF Petrel | 1 | | | | Let-1 |
| 1454 | P. externa | 1 | | | | |
| 1538 | Leach's Type | 1 | | | | |
| 1544 | P. externa | 1 | | | | |
| 1552 | P. externa | 1 | | | | |
| 1553 | Shear Pet | 1 | | | | |
| 1600 | | | | | Stop for station pos, | total 3 |
| 1715 | | | | | Resume Watch | |
| 1720 | O. tethys | 1 | | | | |
| 1752 | | | | | Underway 180° | |
| 1805 | P. externa | 1 | | | | |
| 1812 | JF Petrel | 2 | | | | |
| 1841 | Wedgetail | 1 | | | Dark | |
| F 1844 | JF Petrel | 7 | | | on H ₂ O | |
| | O. tethys | 2 | | | | |
| 1853 | Bl-fal Booby | 1 | | | Imm | |
| 1855 | JF Petrel | 1 | | | | |
| F 1859 | JF Petrel | 2 | | | on H ₂ O. | |
| | Wedgetail | 3 | | | DARK | |
| 1916 | | | | | Sunset | |

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DATE 21 August 1967
Pg. # 1

| time | species | # | dir. | hgt. | remarks | loc. |
|---------|------------|----------|------|------|---------------------|------|
| 0654 | | | | | Sunrise | |
| 0710 | Shear-Pet | 1 | | | | |
| 0713 | JFPetrel | 1 | | | | |
| 0722 | Wedgetail | 1 | | | Light | |
| 0725 | JFPetrel | 3 | | | | |
| 0730 | JFPetrel | 2 | | | | |
| 0733 | Wedgetail | 1 | | | Dark | |
| 0744 | JFPetrel | 2 | | | | |
| 0752 | Wedgetail | 1 | | | Dark | |
| SF 0755 | JFPetrel | 6 | | | | |
| 0809 | P. externa | 4 | | | | |
| 0810 | JFPetrel | 1 | | | | |
| 0823 | P. externa | 2 | | | | |
| 0837 | P. externa | 3 | | | | |
| SF 0850 | P. externa | 100 ± 25 | | | | |
| | sooty Tern | 4 | | | | |
| 0855 | Wedgetail | 3 | | | dark | |
| 0913 | Wedgetail | 1 | | | dark | |
| 0914 | P. externa | 4 | | | | |
| 0922 | P. externa | 3 | | | | |
| 0930 | Pterodroma | 1 | | | dark | |
| 0933 | JFPetrel | 3 | | | | |
| 0934 | JFPetrel | 1 | | | Squid in bill | |
| 0941 | JFPetrel | 2 | | | | |
| 0942 | Wedgetail | 1 | | | dark. | |
| 0954 | Wedgetail | 1 | | | dark | |
| 0954 | JFPetrel | 2 | | | | |
| 0959 | JFPetrel | 1 | | | | |
| 1000 | Kerm Pet | 1 | | | dark | |
| F 1005 | frigate | 2 | | | | |
| 1010 | P. externa | 95 ± 10 | | | Very little feeding | |
| | Wedgetail | 10 | | | dark | |
| 1020 | JFPetrel | 3 | | | | |
| 1025 | Phalarope | 1 | | | | |
| 1028 | JFPetrel | 2 | | | | |
| 1030 | Kerm Pet | 1 | | | dark | |
| 1034 | JFPetrel | 2 | | | | |
| 1043 | W-wing Pet | 1 | | | dark | |

S-P-1

JFP-30

WIS-19

Pex-201

ST-4

BWP-1

PIP-1

Kerm-2

frig-2

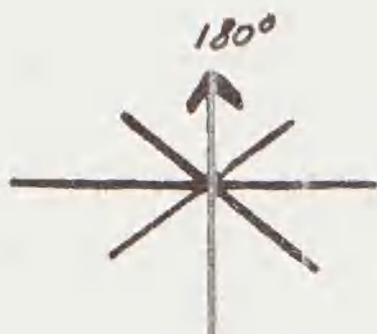
PAD-1

W-WP-1

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SMITHSONIAN INSTITUTION
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DATE 21 August 1967
Pg. # 2

| time | species | # | dir. | hgt. | remarks | loc. |
|------|---|------|------|------|------------------------|--------|
| 1145 | | | | | Resume Obs. | |
| 1150 | JF Petrel | 4 | | | | |
| 1155 | JF Petrel | 3 | | | | JFP-23 |
| 1156 | Wedgetail | 1 | | | Dark | WTS-3 |
| 1203 | Bl-wing Pet | 1 | | | | BWP-2 |
| 1232 | | | | | Underway 190° | BD-1 |
| 1240 | JF Petrel | 3 | | | | MgF-1 |
| 1255 | Wedgetail | 1 | | | Dark | WWP-1 |
| 1313 | JF Petrel | 3 | | | | Aut-1 |
| 1316 | Audubon's?
Shear | 1 | | | Dark | Kerm-2 |
| 1322 | Kerm Pet | 1 | | | | S-P-35 |
| 1338 | JF Petrel | 1 | | | | Pax-80 |
| 1338 | Kerm Pet | 1 | | | Dark | WTS-1 |
| 1348 | frigate | 4 | | | Disturbance | PTP-1 |
| 1348 | Shear-Pet | 15 | | | | |
| 1414 | Br Booby | 1 | | | Injury | |
| 1415 | JF Petrel | 2 | | | | |
| 1428 | frigate | 2 | | | Some feeding | |
| | Pterodroma | 50±5 | | | | |
| | Shear Pet | 20±5 | | | | |
| 1435 | O. Tethys | 1 | | | | |
| 1504 | Mg Frig | 1 | | | ad? some feeding | |
| | P. externa | 15±3 | | | | |
| 1520 | JF Petrel | 2 | | | | |
| 1521 | Wedgetail | 1 | | | light | |
| 1539 | frigate | 2 | | | | |
| 1550 | PI Petrel | 1 | | | | |
| 1551 | JF Petrel | 3 | | | | |
| 1600 | | | | | Stop for station | |
| 1730 | | | | | Resume obs | |
| 1755 | Frigate | 3 | | | | |
| | Pterodroma | 15±3 | | | Underway 195° | |
| 1808 | | | | | | |
| 1840 | Bl-wing Pet | 1 | | | | |
| 1845 | JF Petrel | 2 | | | | |
| 1850 | W-wing Pet | 1 | | | Feeding | |
| 1914 | | | | | Sunset | |

FF, flew off, landed again wings out, then flew off.

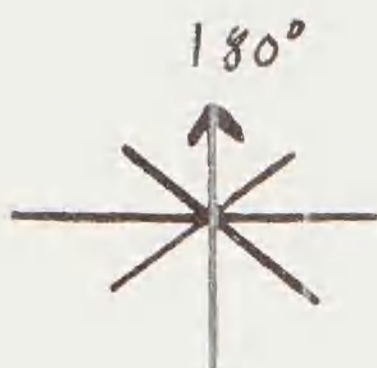
145
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126

263
162

125

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SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG -- E

DATE 22 August 1967
Pg. # 1

| time | species | # | dir. | hgt. | remarks | loc. |
|---------|-----------------------|---------|------|------|--|-----------|
| 0656 | | | | | Sunrise | |
| 0712 | Pterodroma | 1 | | | | |
| 0723 | Leach's Type | 1 | | | feeding | |
| 0728 | Red Phalarope | 3 | | | Kicking on surface | |
| 0733 | Leach's Type | 1 | | | on H ₂ O | |
| 0738 | W-wing, Pet | 1 | | | | |
| 0755 | Sooty Tern | 1 | | | 2nd year bird speckling around throat. | |
| 0800 | Frigate | 1 | | | | |
| 0801 | | | | | stop | |
| 0807 | Pterodroma | 1 | | | | |
| 0808 | Storm Petrel | 1 | | | | |
| 0825 | W-wing | | | | Underway | |
| 0830 | W-wing Pet | 4 | | | | Ptero-2 |
| 0832 | W-wing Pet | 1 | | | | Lea T-6 |
| 0848 | Leach's Type | 2 | | | | R Phal-3 |
| 0848 | B. Storm Pet | 1 | | | | W-wing-16 |
| 0849 | Kern Pet | 1 | | | | ST-5 |
| 0855 | Leach's Type | 1 | | | Dark | frig-4 |
| 0856 | W-wing Pet | 1 | | | | FF-1 |
| 0903 | W-wing Pet | 3 | | | | Storm-2 |
| 0920 | Sooty Tern | 4 | | | feeding | BOSP-1 |
| 0925 | Shear Pet | 10 or 2 | | | | Kern-1 |
| 0930 | Storm Pet | 1 | | | | ST-11 |
| 0932 | W-wing Pet | 1 | | | | |
| 0939 | W-wing Pet | 1 | | | | |
| 1018 | W-wing Pet | 1 | | | | |
| 1029 | Shear-Pet | 1 | | | | |
| 1036 | W-wing Pet | 1 | | | | |
| 1036 | Frigate | 2 | | | feeding. | |
| 1045 | | | | | Stop for station table | |
| 1215 | | | | | Resume Obs | |
| 1220 | | | | | | |
| 1300 | Frigate | 1 | | | Neotoma 5 KTS | |
| 1317 | | | | | Underway. | |
| 1430-45 | | | | | Stop | |
| 1455 | Pterodroma | 1 | | | | |
| 1510 | Leach's Type | 1 | | | | |
| 1520 | W-wing Pet | 1 | | | | |
| 1554 | W-wing Pet | 1 | | | | |
| 1600 | | | | | Stop | |
| 1715 | | | | | Resume obs Underway at 1801 | |
| 1850 | Gr Frigate | 1 | | | Ao Sunset | |

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SMITHSONIAN INSTITUTION
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AT SEA DAILY LOG -- E

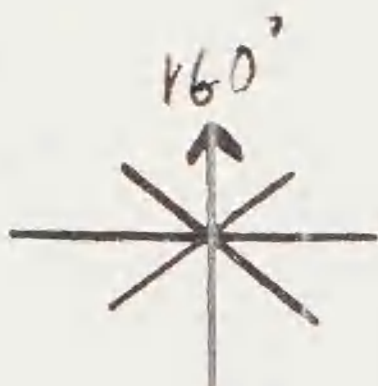
DATE 23 August 1967
Pg. #



| time | species | # | dir. | hgt. | remarks | loc. |
|------|-------------------------------------|---|------|------|--|------|
| 0657 | | | | | Sunrise | |
| 0705 | R-Tail Tropic | 1 | | | Imm. | |
| 0815 | | | | | Stop | |
| 0816 | Frigate sp | 1 | | | | |
| 0832 | | | | | Underway 155° | |
| 1044 | P. leucobre | 1 | | | | |
| 1045 | | | | | Stop for station | |
| 1200 | | | | | Assume Obs. | |
| 1211 | Wedge Tail
Wedge Tail | 1 | | | light | |
| 1312 | Phalarope | 1 | | | | |
| 1315 | | | | | Nek Ton Tow 5Kts | |
| 1409 | | | | | Underway | |
| 1413 | Phalarope | 1 | | | | |
| 1428 | W-wing Pet | 1 | | | | |
| 1431 | Shearbird | 1 | | | | |
| 1440 | Collared Pet | 1 | | | | |
| 1540 | | | | | 2015 Stemella sp heading E | |
| 1542 | Wh-face | | | | One Bat Petrel & Wedge B. acutirostris | |
| 1550 | W. SP | 1 | | | Faintly seen. No white Flicking vigorously off H ₂ O | |
| 1552 | W. SP | 1 | | | Dark. appeared about 1000 ft. dark | |
| 1600 | Kerm Pet | | | | Dark. | |
| 1715 | | | | | Stop for station. | |
| 1803 | Oceanodroma | 1 | | | Assume Obs | |
| 1830 | | | | | Underway | |
| 1909 | | | | | Sunset Green Flash | |

Stop
Term-1
Shad-1
RTTB-1
Frig-1
WWP-3
WTS-1
PDS-2
WSP-1

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AT SEA DAILY LOG -- E

DATE 24 August 1967
Pg. # 1

| time | species | # | dir. | hgt. | remarks | loc. |
|---------|------------------------|---|------|------|----------------------------|------------|
| 0659 | | | | | Sunrise | |
| 0815-32 | | | | | STOP | |
| 0855 | Oceanodroma | 1 | | | Feeding | Oceanod-7 |
| 0857 | W. Faced SP | 1 | | | | W. Faced-2 |
| 0912 | Pterodroma | 1 | | | | Pterod-1 |
| 0930 | Oceanodroma | 1 | | | | |
| 0933 | Oceanod. SP | 1 | | | | Birds-2 |
| 0942 | Oceanod. SP | 1 | | | | Lt-14 |
| 1003 | Oceanod. SP | 1 | | | | Ad-1 |
| 1008 | W. Faced SP | 1 | | | | Colla-1 |
| 1045 | | | | | Stop for Station + Obs | Mak-1 |
| 1145 | | | | | Resume Obs. | |
| 1230 | | | | | | 29 |
| 1255 | Storm Petrel | 1 | | | Nk Tow 5575 | |
| 1325 | Oceanodroma | 1 | | | | |
| 1328 | Leach's SP | 1 | | | Bl line seen. | |
| 1335 | Leach's Type | 1 | | | | |
| 1376 | Leach's Type | 4 | | | | |
| 1415 | Leach's Type | 6 | | | | |
| 1430 | | | | | STOP | |
| 1440 | Leach's Type | 1 | | | | |
| 1445 | | | | | Underway | |
| 1512 | Leach's SP | 1 | | | | |
| 1514 | Leach's Type | 2 | | | | |
| 1600 | | | | | Cease Obs Stop for Station | |
| 1715 | | | | | Resume Obs | |
| 1733 | Audubon's Shear | 1 | | | | |
| 1755 | | | | | Underway | |
| 1800 | | | | | 2055 Delphide | |
| 1843 | | | | | One sperm Whale | |
| 1844 | Collared Pet | 1 | | | | |
| 1900 | O. markhami | 1 | | | | |
| 1906 | | | | | Sunset | |

S F

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DATE 25 August 1967
Pg. # 1



| time | species | # | dir. | hgt. | remarks | loc. |
|------|---------------------------|---|------|------|--|------|
| 0702 | | | | | Sunrise | |
| 0713 | Oceanodroma | 1 | | | | |
| 0715 | Leach's SP | 1 | | | Bl line seen | |
| 0730 | Oceanodroma | 1 | | | | |
| 0732 | Leach's type | 1 | | | | |
| 0737 | Leach's type | 1 | | | | |
| 0756 | Leach's type | 1 | | | | |
| 0800 | | | | | Sperm? Whale | |
| 0810 | Pterodroma | 1 | | | | |
| 0815 | | | | | Stop | |
| 0818 | O. markhami? | 1 | | | | |
| 0830 | Oceanodroma | 3 | | | | |
| 0832 | O. Tethys - sp | 1 | | | | |
| 0833 | | | | | Underway 100' | |
| 0850 | | | | | 3 Whales perm | |
| 0853 | P. leucoptera | 1 | | | | |
| 0912 | W-Faced SP | 1 | | | Pale bump - Some Arching off. Rapid stiff wing beats | |
| 0915 | | | | | 8 Sperm Whale in area all yawning | |
| 0927 | Collared Pet | 1 | | | | |
| 0927 | Oceanodroma | 1 | | | | |
| 0957 | P. leucoptera | 1 | | | | |
| 1015 | Oceanodroma | 1 | | | | |
| 1024 | W-Faced SP | 1 | | | | |
| 1025 | Oceanodroma | 1 | | | | |
| 1030 | O. Tethys | 1 | | | definitely not Leach's | |
| 1030 | Oceanodroma | 1 | | | | |
| 1035 | Oceanodroma | 1 | | | | |
| 1040 | Collared Pet | 1 | | | | |
| 1041 | P. leucoptera | 1 | | | | |
| 1044 | Oceanodroma | 1 | | | | |
| 1044 | W-Faced SP | 1 | | | | |
| 1045 | | | | | Stop for Station | |
| 1054 | Leach's SP | 1 | | | | |
| 1055 | O. Tethys | 1 | | | | |
| 1102 | | | | | Coast Obs | |
| 1200 | | | | | Recomm Obs | |
| 1207 | Leach's SP | 2 | | | Nelson's Tow | |
| 1255 | Phalarope | 1 | | | | |
| 1303 | Oceanodroma | 2 | | | | |
| 1328 | | | | | Underway 190 | |
| 1343 | Oceanodroma | 1 | | | | |
| 1345 | Oceanodroma | 1 | | | | |

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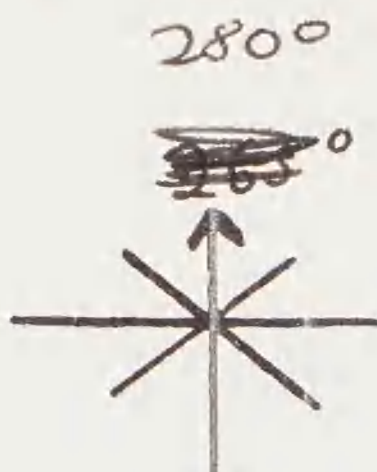
SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG -- E



DATE 25 August 1967
Pg. # 2


| time | species | # | dir. | hgt. | remarks | loc. |
|------|---------------|---|------|------|------------------------|---------------|
| 1426 | Oceanodroma | 1 | | | | |
| 1430 | 45 | | | | Stop | |
| 1512 | Leach's Type | 2 | | | | |
| 1526 | Leach's SP | 1 | | | Bl line seen | |
| 1600 | | | | | STOP for Station + obs | |
| 1615 | | | | | Resume obs | |
| 1736 | Oceanodroma | 1 | | | | |
| 1800 | O. Tethys | 1 | | | | |
| 1806 | | | | | Underway 190° | Ocean - 5 |
| 1824 | Leach's SP | 1 | | | | LT - 3 |
| 1826 | Oceanodroma | 1 | | | | Leach's - 2 |
| 1833 | Oceanodroma | 1 | | | | O. Tethys - 1 |
| 1836 | Leach's Type | 1 | | | | Pterod - 3 |
| 1836 | P. longiptera | 1 | | | | Collared - 2 |
| 1846 | P. longiptera | 1 | | | | |
| 1846 | Oceanodroma | 1 | | | | |
| 1847 | P. longiptera | 1 | | | | |
| 1850 | Colared P | 1 | | | | |
| 1855 | Colared P | 1 | | | | |
| 1903 | | | | | Sunset, | |

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DATE 26 August 1967
Pg. # 1

| time | species | # | dir. | hgt. | remarks | loc. |
|------|---------------|---|------|------|--|------|
| 0709 | | | | | Sunrise | |
| 0723 | Shear-Pet | 1 | | | | |
| 0732 | P. leucoptera | 1 | | | | |
| 0736 | Pterodroma | 1 | | | | |
| 0745 | P. leucoptera | 1 | | |  | |
| 0747 | W-Faced SP | 1 | | | | |
| 0810 | Pterodroma | 1 | | | | |
| 0832 | Pterodroma | 1 | | | | |
| 0845 | P. leucoptera | 1 | | | | |
| 0859 | Pterodroma | 1 | | | | |
| 0900 | P. leucoptera | 2 | | | | |
| 0925 | Pterodroma | 1 | | | | |
| 0948 | O. tethys | 1 | | | | |
| 0954 | P. leucoptera | 1 | | | | |
| 1002 | P. leucoptera | 1 | | | | |
| 1005 | Pterodroma | 1 | | | brevipes? | |
| 1025 | P. leucoptera | 1 | S | | brevipes? | |
| 1026 | P. leucoptera | 1 | S | | | |
| 1058 | P. leucoptera | 1 | | | | |
| 1100 | P. leucoptera | 2 | S | | | |
| 1108 | Storm Petrel | 1 | | | | |
| 1109 | | | | | Ceano 065 | |
| 1200 | | | | | Remme 055 | |
| 1329 | P. leucoptera | 1 | | | brevipes? | |
| 1353 | Oceanodroma | 1 | | | | |
| 1403 | Oceanodroma | 1 | | | | |
| 1450 | Oceanodroma | 1 | | | | |
| 1523 | P. leucoptera | 1 | | | brevipes? | |
| 1533 | Pterodroma | 1 | | | | |
| 1547 | Sooty Tern | 1 | | | 1st year bird. fresh fall molt | |
| 1559 | Oceanodroma | 1 | | | | |
| 1600 | 1715 | | | | Break | |
| 1717 | Oceanodroma | 1 | | | | |
| 1722 | Sooty Tern | 3 | 0 | | | |
| 1741 | P. leucoptera | 1 | | | | |
| 1803 | P. externa | 1 | | | | |
| 1829 | P. leucoptera | 1 | | | | |
| 1918 | P. leucoptera | 1 | | | brevipes? | |
| 1919 | | | | | Sunset | |

Hook mark curves into
body rather than going in straight
Could there possibly be P. leucoptera?

W.F.S.P. 1

S-P 1

Plenco - 13

Collared 4

Pter - 7

Contrail

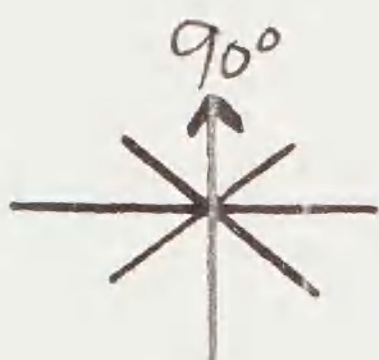
ST-4

Pup-1

Storm-6

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AT SEA DAILY LOG -- E

DATE 27 August 1967
Pg. #

| time | species | # | dir. | hgt. | remarks | loc. |
|-----------|--------------|---|------|------|-----------------|-----------|
| 0716 | | | | | Sunrise | |
| 0725 | Shear-Pet | 1 | | | | |
| 0733 | Collared Pet | 1 | | | | |
| 0742 | Oceanodroma | 1 | | | | |
| 0744 | Wh-wing, Pet | 1 | | | | |
| 0827 | Wh-wing, Pet | 1 | | | | |
| 0835 | Wh-wing, Pet | 1 | | | | |
| 0848 | Wh-wing, Pet | 4 | | | | S-P-2 |
| 0907 | Wh-wing, Pet | 1 | | | | Pterod-1 |
| 0907 | Shear-Pet | 1 | | | ~H20 | Ocean-1 |
| 0916 | Oceanodroma | 1 | | | | |
| 0930-1130 | | | | | Break | |
| 1143 | Wh-wing, Pet | 1 | | | | Coll-8 |
| 1210 | | | | | Sperm Whale (1) | W-W-21 |
| 1230 | Wh-wing, Pet | 1 | | | | Otellys-1 |
| 1315 | Collared Pet | 1 | | | | W.F.S.P-1 |
| 1345-1500 | | | | | Break | Keacht-1 |
| 1520 | Pterodroma | 1 | | | | |
| 1526 | Leach's Type | 1 | | | | |
| 1536 | Wh-wing, Pet | 1 | | | | |
| 1543 | Collared Pet | 1 | | | | |
| 1612 | Collared Pet | 1 | S | | | |
| 1623 | Wh-wing, Pet | 1 | | | | |
| 1634 | Collared Pet | 1 | S | | | |
| 1643 | Collared Pet | 1 | | | | |
| 1653 | W-wing, Pet | 1 | | | Break. | |
| 1700-15 | | | | | | |
| 1725 | Collared Pet | 1 | | | | |
| 1743 | W-wing, Pet | 1 | | | | |
| 1803 | W-wing, Pet | 1 | | | | |
| 1812 | W-wing, Pet | 1 | | | | |
| 1838 | W-wing, Pet | 1 | | | | |
| 1843 | W-wing, Pet | 1 | | | | |
| 1845 | Collared Pet | 1 | | | | |
| 1846 | W-wing, Pet | 1 | | | | |
| 1847 | W-wing, Pet | 1 | | | | |
| 1848 | Wh-Face SP | 1 | | | | |
| 1859 | W-wing, Pet | 1 | | | Sunset | |
| 1914 | | | | | | |

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AT SEA DAILY LOG -- E

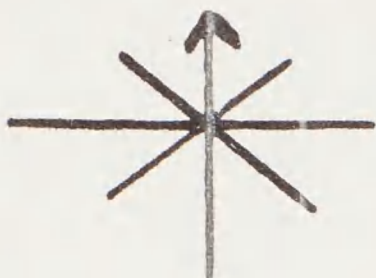
DATE 28 August 1967
Pg. # 1

| time | species | # | dir. | hgt. | remarks | loc. |
|---------|--------------|---|------|------|---|------|
| 0704 | | | | | Sunrise | |
| 0725 | W-face SP | 1 | | | Flying to waves and wind 20 Kts. Gliding | |
| 0730 | W-Face SP | 1 | | | Occasionally putting foot in H ₂ O. Slight pulling off | |
| 0734 | Wh-wing Pet | 1 | | | but still proceeding along same path. Not from string like | |
| 0740 | W-Face SP | 1 | | | Nesofregatta | |
| 0750 | W-Face SP | 1 | | | Gliding slowly over waves, labelling foot in H ₂ O, then | |
| 0805 | Wh-wing Pet | 1 | | | stiff wings + proceed as above | |
| 0815 | Wh-wing Pet | 1 | | | | |
| 0818 | W-Face SP | 1 | | | | |
| 0821 | Oceanodroma | 1 | | | | |
| 0821 | W-Face SP | 1 | | | | |
| 0834 | W-Face SP | 1 | | | | |
| 0831 | W-Face SP | 1 | | | | |
| 0834 | W-Face SP | 1 | | | | |
| 0844 | W-wing Pet | 1 | | | | |
| 0847 | Oceanodroma | 1 | | | | |
| 0902 | Wh-Face SP | 1 | | | | |
| 0903 | Wh-wing Pet | 1 | | | | |
| 0906 | W-Face SP | 1 | | | | |
| 0907 | W-Face SP | 1 | | | | |
| 0908 | W-Face SP | 1 | | | | |
| 0916 | Wh-wing Pet | 1 | | | | |
| 0633 | | | | | brevi? | |
| 1045 | W-wing Pet | 1 | | | Cic 70° | |
| 1050 | | | | | | |
| 1200 | | | | | Stop for Station | |
| 1212 | Shear Pet | 1 | | | Resume Obs | |
| 1221 | W-wing Pet | 1 | | | | |
| 1230 | | | | | Underway 160° | |
| 1256 | Pearl's Type | 3 | | | | |
| 1358 | Pearl's Type | 1 | | | | |
| 1412 | W-wing Pet | 1 | | | | |
| 1413 | W-wing Pet | 1 | | | breviger? | |
| 1415-30 | | | | | Stop | |
| 1535 | Shear Pet | 1 | | | | |
| 1554 | Pearl's Type | 2 | | | | |
| 1556 | Pearl's Type | 1 | | | | |
| 1600 | 1715 | | | | Break in Station | |
| 1720 | Pearl's Type | 2 | | | | |
| 1808 | | | | | Underway | |

Pha 1
W-F SP - 13
W-wing P - 11
Ocean - 2
S-P - 2
Lea T - 9
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DATE 28 August 1967
Pg. # 2

| time | species | # | dir. | hgt. | remarks | loc. |
|------|-------------|---|------|------|---------|------|
| 1815 | Oceanodroma | 1 | | | | |
| 1829 | | | | | 4-1850 | |
| 1838 | W-wing Pet | 1 | | | | |
| 1843 | Shear-Pet | 1 | | | | |
| 1848 | Pterodroma | 1 | | | | |
| 1901 | | | | | Summit | |

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DATE 29 August 1967
Pg. # 1

| time | species | # | dir. | hgt. | remarks | loc. |
|-----------|--------------|---|------|------|---------|------|
| 0600 | | | | | Sunrise | |
| 0712 | Shear-Pet | 1 | | | | |
| 0727 | Kerm. Pet | 1 | | | dark. | |
| 0758 | Bird | 1 | | | | |
| 0800-0900 | | | | | Break | |
| 0931 | Pterodroma | 1 | | | | |
| 1030-1200 | | | | | Break. | |
| 1226 | S. markhami | 1 | | | | |
| 1230 | W-wing Pet | 1 | | | | |
| 1236 | Shear-Pet | 1 | | | | |
| 1303 | W-wing Pet | 1 | | | brevis? | |
| 1436 | W-wing Pet | 1 | | | | |
| 1443 | W-wing Pet | 1 | | | brevis? | |
| 1452 | Leach's Type | 1 | | | | |
| 1526 | Wh-Face SP | 1 | | | | |
| 1530 | Wh-Face SP | 1 | | | | |
| 1536 | Oceanodroma | 1 | | | | |
| 1552 | Leach's Type | 2 | | | | |
| 1600-1700 | | | | | Break | |
| 1718 | Leach's Type | 1 | | | | |
| SF 1729 | Wh-wing Pet | 5 | | | | |
| 1756 | Leach's SP | 1 | | | | |
| 1757 | Wh-wing Pet | 1 | | | | |
| 1846 | Wh-Face SP | 1 | | | | |
| 1854 | | | | | Sunset | |

Oceanodroma-1
S-P-2
Hann-1
Bird-1
Pterod-1
Mark-1
W-wing 1
L Type 1
Leach's 1
Wh-Face-3

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DATE 30 August 1967
Pg. # 1

| | time | species | # | dir. | hgt. | remarks | loc. |
|----|-----------|-----------------|---|------|------|--|------|
| | 0830 | | | | | Day Obs. | |
| 2 | 0858 | Oceanodroma | 1 | | | | |
| | 0923 | Oceanodroma | 1 | | | | |
| | 0947 | Oceanodroma | 1 | | | | |
| 2 | 1015 | Glean Pet | 1 | | | | |
| | 1034 | Phalarope | 1 | | | | |
| | 1035 | O. markhami | 1 | | | | |
| 8 | 1038 | Leach's SP | 1 | | | | |
| | 1043 | Leach's SP | 3 | CE | | | |
| | 1044 | Pale-foot Shear | 1 | | | on H ₂ O reliability 2 completely H ₂ O | |
| | 1110 | Oceanodroma | 1 | | | | |
| | 1170-1230 | | | | | break | |
| | 1238 | Oceanodroma | 1 | | | | |
| 10 | 1246 | O. markhami | 1 | | | | |
| F | 1305 | Leach's Type | 5 | | | on H ₂ O | |
| | 1310 | Pterodroma | 1 | | | | |
| | 1315 | O. markhami | 2 | | | | |
| | 1332 | Leach's SP | 1 | | | | |
| | 1334 | Leach's Type | 3 | | | | |
| 21 | 1335 | Wing Shear | 2 | | | | |
| | 1340 | O. markhami | 1 | | | at times rising in air | |
| | | O. tethys | 1 | | | 10' ±, seemed to lift up | |
| | | Leach's SP | 1 | | | head and tail, spread | |
| | | | | | | wings and then drop | |
| | | | | | | down to H ₂ O. | |
| | 1345 | Leach's SP | 1 | | | | |
| | 1412 | Leach's Type | 1 | | | | |
| | 1415 | O. markhami | 1 | | | | |
| SF | 1418 | Leach's SP | 6 | | | | |
| | 1426 | Leach's SP | 1 | | | | |
| | | O. tethys | 2 | | | | |
| | 1434 | Wh. face SP | 1 | | | | |
| 12 | 1435 | O. markhami | 1 | | | | |
| | 1438 | Leach's Type | 2 | | | | |
| | 1458 | Leach's Type | 2 | | | | |
| | 1502 | Leach's SP | 1 | | | | |
| | 1502 | Wh. face SP | 1 | | | | |
| | 1511 | O. markhami | 1 | | | | |
| | 1515 | Wh. face SP | 1 | | | | |
| | 1516 | Wh. face SP | 1 | | | | |
| | 1517 | O. markhami | 1 | | | | |
| | 1535 | Wh. face SP | 1 | | | | |

Oceanodroma 3
SP - 1

Phalarope 1

markhami - 9

Leach's SP - 15

Leach's Type - 13

Pale-foot - 1

Pterodroma - 1

Wing Shear - 2

tethys - 3

Wh. face - 5

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DATE 30 August 1967
Pg. # 2

| time | species | # | dir. | hgt. | remarks | loc. |
|------------|---------------|---|------|------|--------------------------|--------|
| 1537 | Leach's SP | 2 | | | | |
| 1550 | Otters | 1 | | | | |
| 1600 | Leach's Type | 2 | | | | |
| 1600 | O. markhami | 1 | | | feeding | |
| 1602 | Wh-Face SP | 1 | | | | |
| 1603 | O. markhami | 1 | | | | |
| 1604 | Leach's SP | 1 | | | | |
| 1612 | Wh-Face SP | 1 | | | Breath | |
| 1630-1710 | | | | | | |
| 1712 | Wh-Face SP | 1 | | | | |
| 1716 | Leach's SP | 1 | | | | |
| 1727 | Artic? Tern | 1 | | | Definitely not Forster's | |
| 1730 | Wh-Face SP | 1 | | | | |
| 1741 | Slender-bills | 1 | | | Dark underwing | |
| 1745 | Wh-Face SP | 1 | | | | |
| 1758 | Leach's SP | 1 | | | | |
| 1810 | | | | | Leave | |
| FF | | | | | | |
| Main After | | | | | | |
| 41 35 | | | | | | |
| | | | | | | 4-13 |
| | | | | | | 103-05 |

mark 2
Artic-1
Leach's 5
Type 2
tells 1
Slender-1
Face-5
17 4 2-05
100-32
99-23

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SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG -- E

DATE 31 August 1969
Pg. #



| | time | species | # | dir. | hgt. | remarks | loc. |
|-----|------|---------------|----|------|------|--------------------------------|------|
| | 0700 | | | | | Begin obs. | |
| | 0712 | Oceanodroma | 1 | | | | |
| | 0718 | Oceanodroma | 1 | | | | |
| | 0718 | Leach's Type | 1 | | | | |
| | 0721 | Phalarope | 1 | | | | |
| | 0724 | Red Phalarope | 1 | | | | |
| | 0729 | O. markhami | 1 | | | | |
| | 0733 | Oceanodroma | 1 | | | | |
| | 0743 | Leach's Type | 2 | | | | |
| 15 | 0744 | Phalarope | 1 | | | | |
| | 0745 | O. markhami | 1 | | | | |
| | 0751 | Oceanodroma | 2 | | | | |
| | 0756 | Phalarope | 1 | SE | | | |
| | 0757 | Leach's Type | 1 | | | | |
| | 0800 | Leach's Type | 1 | | | | |
| | 0801 | Oceanodroma | 1 | | | | |
| | 0816 | O. Tethys | 1 | | | | |
| 12 | 0816 | Red Phalarope | 1 | E | | Stop | |
| | 0821 | Oceanodroma | 1 | | | | |
| | 0825 | Oceanodroma | 1 | | | | |
| | 0830 | Red Phalarope | 3 | | | Underway. | |
| | 0834 | Oceanodroma | 1 | | | Partial breeding plumage on 20 | |
| | 0838 | Phalarope | 1 | W | | | |
| | 0840 | Phalarope | 1 | W | | | |
| | 0856 | Phalarope | 1 | | | | |
| | 0903 | O. Tethys | 4 | | | | |
| 5 F | 0907 | Red Phalarope | 1 | | | | |
| | 0918 | Leach's SP | 14 | | | | |
| 24 | | O. tethys | 1 | | | | |
| | 0930 | Red Phalarope | 1 | SE | | | |
| | 0930 | Oceanodroma | 1 | | | | |
| | 0940 | Oceanodroma | 2 | | | | |
| | 1010 | Oceanodroma | 1 | | | | |
| | 1025 | Oceanodroma | 1 | | | | |
| | 1035 | Red Phalarope | 2 | | | | |
| 12 | 1039 | Oceanodroma | 2 | | | | |
| | 1047 | | | | | Stop for station | |
| | 1145 | | | | | Resume obs. | |
| | 1155 | Oceanodroma | 2 | | | | |
| | 1201 | Phalarope | 1 | | | | |
| | 1220 | | | | | Resume obs. 1450 | |
| | 1318 | Oceanodroma | 1 | | | | |
| | 1326 | Red Phalarope | 2 | | | | |
| | 1331 | | | | | Underway 355° | |

Oceanodroma - 18

RT - 5

Leach's - 14

Tethys - 6

Red - 7

Red P - 11

mark - 2

63

10 7 .7

105

7

1805
28
—
7 <3

1737

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DATE 31 August 1967
Pg. # 2

| | time | species | # | dir. | hgt. | remarks | loc. |
|----|-----------|---------------|---|------|------|---|------|
| 83 | 1350 | Leach's Type | 1 | | | | |
| 66 | 1353 | Leach's Type | 2 | | | | |
| | 1408 | Oceanodroma | 2 | | | | |
| | 1412 | Red Phalarope | 1 | | | on H ₂ O | |
| | 1418 | Leach's Type | 1 | | | | |
| | 1420 | Oceanodroma | 1 | | | | |
| | 1421 | Phalarope | 4 | | | on H ₂ O | |
| 16 | 1422 | Phalarope | 2 | | | on H ₂ O | |
| | 1425 | Red Phalarope | 2 | | | | |
| | 1430 | | | | | 1st yr 1445 m. d. | |
| | 1435 | Leach's Type | 2 | | | | |
| | 1438 | Red Phalarope | 1 | | | | |
| FF | 1502 | Red Phalarope | 5 | | | on H ₂ O. | |
| | 1503 | Oceanodroma | 1 | | | | |
| | 1516 | Red Phala | 1 | S | | | |
| 14 | 1523 | Oceanodroma | 1 | | | | |
| | 1526 | Oceanodroma | 2 | | | | |
| | 1538 | Oceanodroma | 1 | | | | |
| | 1550 | Oceanodroma | 1 | | | | |
| | 1555 | Phalarope | 2 | | | | |
| | 1600-1715 | | | | | Break on station | |
| | 1720 | Oceanodroma | 2 | | | seen at distance - Very large all dark large head | |
| | 1723 | Leach's Type | 1 | | | pointed wings impressed me as something I hadn't | |
| | 1740 | Procellaria? | 1 | | | seen before | |
| | 1750 | Swallow Tail | 1 | | | adult - Forked Tail seen. black hood. | |
| | | Gull | | | | | |
| | 1810 | Oceanodroma | 2 | | | | |
| | 1826 | O. telhyz | 1 | | | | |
| | 1928 | | | | | | |
| | 1836 | | | | | | |

PT - 7

Pano - 13

RF - 10

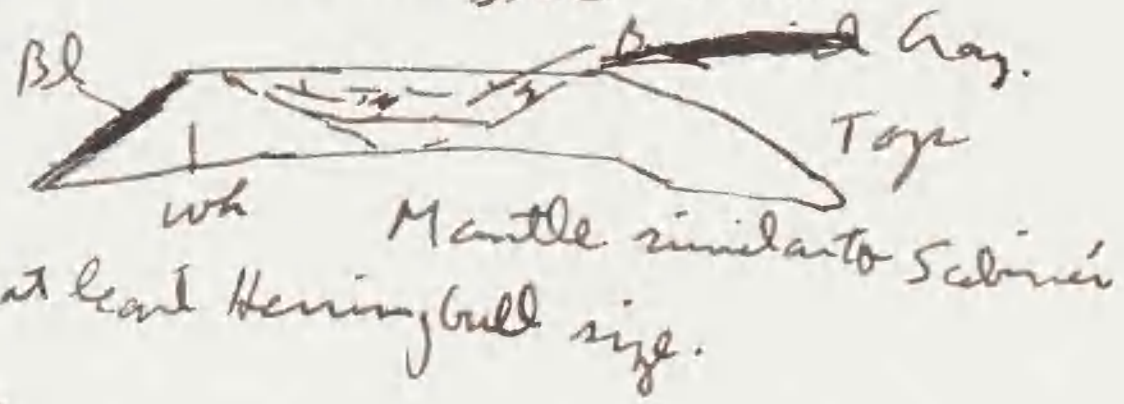
Bo - 8

W - 1

Sw - 1

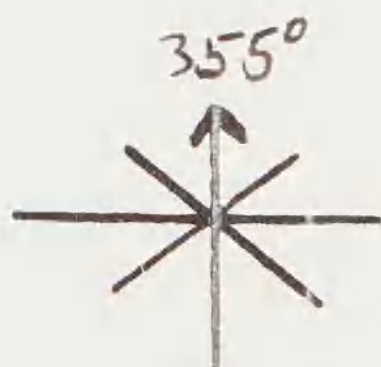
Pro - 1

41



Large
at least Herring gull size.
Underway
Sunset

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| | time | species | # | dir. | hgt. | remarks | loc. |
|----|------|------------------------------------|--------|------|------|---|--------------|
| | 0630 | | | | | Begin Obs. | |
| | 0643 | tern sp | 1 | SE | | | |
| | 0645 | Oceanodroma | 1 | | | | tern - 1 |
| | 0705 | Oceanodroma | 1 | | | | Ocean - 6 |
| 49 | 0707 | Oceanodroma | 1 | | | | BL SP - 1 |
| | 0713 | O. Tethys | 1 | | | | |
| | 0719 | O. metanota
markhami | 1 | | | | |
| SF | 0725 | frigate | 3 | | | Searching Frigates feeding | Wby 11 |
| | | Sooty Tern | 40 ± 5 | SE | | | Pack T - 1 |
| | 0735 | Pterodroma | 1 | | | | |
| SF | 0744 | Sooty Tern | 30 ± 5 | | | Frigates feeding | frig - 11 |
| | | frigate | 1 | NE | | | ST - 168 |
| | | Shear-Pet | 2 | SE | | | DRP - 2 |
| 67 | 0744 | Oceanodroma | 1 | | | | S-P - 4 |
| | 0744 | Wh. faced SP | 1 | | | | Wh. + SP - 1 |
| | 0753 | T. Tanager | 2 | | | | LTJ - 2 |
| | 0753 | O. Tethys | 1 | | | | Collar - 1 |
| | 0803 | Sooty Tern | 2 | | | | Kern - 1 |
| | 0803 | Oceanodroma | 2 | | | | |
| | 0804 | Shear-Pet | 1 | | | | |
| | | Dark-rump P | 1 | | | | |
| | | Kern Pet | 1 | | | | |
| | | | | | | Dark. | |
| SF | 0805 | Collared Pet | 1 | | | | 30 210 |
| | 0812 | Sooty Tern | 15 ± 2 | | | | |
| | | frigate | 2 | | | Frigates feeding | |
| | 0815 | | | | | Stgs | |
| | 0830 | O. Tethys | 3 | | | | |
| | 0832 | | | | | Underway | |
| | 0841 | Frigate | 4 | | | | |
| 18 | 0902 | frigate | 1 | | | | |
| | 0902 | O. Tethys | 1 | | | | |
| | 0905 | Sooty Tern | 1 | | | | |
| | 0906 | Leach's Type | 1 | | | following ship | |
| | 0906 | O. Tethys | 2 | | | | |
| IF | 0907 | Sooty Tern | 5 | SW | | adult Type | |
| | 0918 | O. Tethys | 2 | | | following ship | |
| | 0925 | O. Tethys | 1 | | | | |
| F | 0930 | Sooty Tern | 75 ± 5 | | | all adult seemed to have fresh plumage | |
| | ↓ | | | | | Most circling high 200' ± Some close to H2O - no indication | |
| | Y5 | | | | | of feeding. Good looks at same. No other comers. | |
| | 0943 | Shear-Pet | 1 | | | about 8 of them were sitting on H2O. | |
| | | | | | | Calling. Headed off in SE direct. | |

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| time | species | # | dir. | hgt. | remarks | loc. |
|-----------|-----------------------|----|------|------|--|---------|
| 1020 | Frigate | 1 | | | | FE M130 |
| 1021 | Sooty Tern | 1 | SW | | | A 220 |
| 1043 | BL-face Boob | 1 | | | | ST-11 |
| 1045 | 1130 | | | | Break On station | titly-4 |
| 1150 | O. Tallyns | 2 | | | | frig-8 |
| 1202 | BL-face Boob | 1 | | | | AFB-2 |
| 1255 | Red-f Booby | 1 | | | Subadult | AFB-1 |
| 1313 | | | | | Underway | WHP-1 |
| 1323 | O. Tallyns | 2 | | | | |
| F 1350 | frigate | 4 | | | dist int Frigates appeared to be feeding | |
| | Sooty Tern | 10 | | | | made 1 |
| 1351 | O. Tallyns | 1 | | | | Oo-1 |
| 1401 | frigate | 2 | | | | |
| 1415-30 | | | | | Stop | 13 29 |
| 1512 | Wh-wing Pet | 1 | | | | |
| 1600-1745 | | | | | Stop for Station Change | |
| 1823 | frigate | 1 | | | | |
| 1830 | Oce anodroma | 1 | | | | |
| 1835 | | | | | Sunset | |

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DATE 2 Sept 1967
Pg. # 1

| | time | species | # | dir. | hgt. | remarks | loc. |
|----|-----------|---------------|---|------|------|--|------|
| | 0627 | | | | | Sunrise | |
| | 0635 | frigate | 2 | | | 1 SA - 1 Ad | |
| | 0635 | Bl-Face Booby | 1 | | | adult - orange bill | |
| | 0636 | Red-f Booby | 4 | | | subadult | |
| | 0641 | frigate | 1 | | | SA 3 | |
| | 0643 | Sooty Tern | 1 | | | | |
| | 0653 | Leach's SP | 1 | | | | |
| | 0700 | frigate | 1 | | | Ad ♀ | |
| | 0715 | Oceanodroma | 1 | | | | |
| | 0720 | O. Tethys | 1 | | | | |
| | 0723 | O. Tethys | 1 | | | | |
| FF | 0727 | O. Tethys | 1 | | | Feeding | |
| | | Leach's SP | 1 | | | | |
| | | Bl SP Petrel | 2 | | | | |
| | | Oceanodroma | 1 | | | | |
| SF | 0740 | frigate | 5 | | | Circling | |
| | 0741 | W-wing Pet | 1 | | | | |
| | 0755 | frigate | 3 | | | | |
| | 0756 | Shear-Pet | 1 | | | | |
| | 0756 | Black SP | 1 | | | | |
| | | Leach's SP | 1 | | | | |
| | 0802 | Collared P | 1 | | | | |
| | 0814 | O Tethys | 1 | | | | |
| | 0815 | | | | | Stop | |
| | 0816 | Kerm Pet | 1 | | | dark | |
| | 0830 | | | | | Underway | |
| | 0855 | Bl Storm P | 1 | | | | |
| | 0904 | frigate | 1 | | | | |
| | 0905 | Bl-face B | 1 | | | Imm. | |
| | 0936 | Shear-Pet | 1 | | | | |
| | 0950 | | | | | 1 Pseudorca? | |
| | 0954 | Kerm Pet | 1 | | | Dark | |
| | 1003 | frigate | 2 | | | | |
| | 1008 | Collared P | 1 | | | | |
| | 1025 | Shear Pet | 1 | SW | | | |
| | 1045-1200 | | | | | Break On Station | |
| | 1248 | O. Tethys | 4 | | | Night Tow 1226-1316 | |
| NA | 1325 | Gr Frigate | 4 | | | Bait fish jumping - No feeding. Floating | |
| | | Red-f Booby | 1 | | | hazy. Small, bluish shipjack shape | |
| | 1326 | W-wing Pet | 1 | | | Subadult | |

Frige 15
Bl-face 2
RFB 5
Sooty 1
Leach 1
Oceanodroma 2
O Tethys 8
Bl SP 4
Bl F 2
Collared 2
S P 3
Kerm 2
GF 4
53

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DATE 2 September 1967
Pg. # 2

| | time | species | # | dir. | hgt. | remarks | loc. |
|----|-----------|---------------|---|------|------|------------------|------|
| 54 | 1355 | Oceanodroma | 3 | | | | |
| | 1356 | JF Petrel | 2 | | | | |
| | 1357 | O. tellus | 2 | | | | |
| | 1418 | Wedgetail | 1 | | | dark | |
| | 1442 | JF Petrel | 1 | | | | |
| | 1444 | Wedgetail | 1 | | | dark. | |
| | 1454 | Leach's Tyto | 1 | | | | |
| | 1454 | Red Phalarope | 1 | | | winter plumage | |
| | 1505 | Frigate | 3 | | | | |
| | 1519 | O. tellus | 2 | | | | |
| | 1545 | O. tellus | 2 | | | | |
| | 1600-1700 | | | | | break in station | |
| | 1712 | Shearwater | 1 | | | | |
| | 1715 | JF Petrel | 1 | | | | |
| | 1716 | Wedgetail | 1 | | | light | |
| | 1800 | | | | | underway | |
| | 1838 | | | | | Sunset. | |

SP 1
JF Petrel 4
Wedgetail 6
Red Phalarope 1
Leach's Tyto 1
Frigate 3
22

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DATE 3 Sept 1967
Pg. # 1

| | time | species | # | dir. | hgt. | remarks | loc. |
|----|------|------------------------|--------------|------|------|----------------------|---------------|
| | 0625 | Red-F Booby | 1 | | | Sunrise | |
| | 0638 | Red-F Booby | 1 | | | Sunrise | 31-50 |
| | 0641 | P. externa | 1 | | | Immature | Artic - 1 |
| | 0642 | Com Noddy | 1 | | | Subadult or Immature | Seagull - 2 |
| 4 | 0653 | Collared Pet | 1 | | | | Shear - 1 |
| | 0716 | Phalarope | 2 | S | | | JP - 2 |
| | 0721 | Phalarope | 2 | S | | | Heard 3 |
| | 0733 | Monk Seal | 1 | | | | RFB - 2 |
| | 0733 | W-wing Pet | 1 | | | | Per - 2 |
| | 0734 | P. externa | 1 | | | | CNT - 1 |
| | 0735 | Wedgetail | 1 | | | Dark | Shear - 1 |
| | 0735 | W-wing Petrel | 1 | | | | Phalar - 8 |
| 13 | 0745 | P. externa | 1 | | | | Monk - 1 |
| | 0752 | Shear Pet | 1 | | | | WTS - 5 |
| | 0752 | Shear Pet | 1 | | | | WTS - 24 |
| | 0805 | Kerm Pet | 1 | | | Dark. | Shear - 1 |
| | 0808 | Kerm Pet | 1 | | | Dark. | S.P. - 2 |
| | 0811 | Wedgetail | 1 | | | Light, Movie | GF - 5 |
| | 0814 | Wedgetail | 1 | | | Dark. | 112 |
| | 0825 | Phalarope | 1 | S | | Light | |
| | 0830 | W-wing Pet | 1 | | | | |
| | 0833 | JFP Pet | 1 | | | | |
| | 0840 | JFP Pet | 1 | | | | |
| | 0847 | Phalarope | 1 | S | | | |
| | 0854 | Gr. Frigate | 1 | | | 5 AM feeding | |
| | 0854 | Wedgetail | 1 | | | Light | |
| | 0900 | Kerm Pet | 1 | | | | |
| | 0903 | Shear Pet | 1 | | | | |
| SF | 0905 | Wedgetail | 13 | | | Dark. | |
| | ↓ | Gr Frigate | 4 | | | 10 dark 3 light | |
| 81 | 15 | Sooty Tern | 50 ± 10 | | | 2 immature seen | Yellow fin |
| | | Artic Frigate Tern | 1 | | | 40 adult Rest? | 2 tuna caught |
| | | Jaeger | 2 | | | | No feeding. |
| | 0915 | W-wing Pet | 1 | | | | |
| | 0920 | W-wing Pet | 1 | | | | |
| | 0921 | Phalarope | 1 | | | | |
| | 0933 | Oceanodroma | 1 | | | | |
| | 0950 | Wedgetail | 1 | | | Dark. | |
| 10 | 1003 | Wedgetail | 1 | | | Light. | |
| | 1012 | Wedgetail | 2 | | | on H2O dark | |
| | 1042 | Phalarope | 1 | | | Dark. | |
| | 1020 | Wedgetail | 2 | | | Dark. | |
| | 1022 | Wedgetail | 1 | | | Dark. | |
| | 1022 | Red-F Booby | 1 | | | 1st Year | |

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| | time | species | # | dir. | hgt. | remarks | loc. |
|------------|------|----------------|--------|------|------|---------------------------------|-----------|
| 11y | 1028 | Wedgetail | 1 | | | Light | |
| | 1045 | 1200 | | | | Break on station | WTS-300 |
| | 1045 | Wedgetail | 1 | | | Dark | frigate-5 |
| F | 1243 | Wedgetail | 12 | | | 1 light, 11 dark on H2O | WTS-2 |
| | 1245 | Bl-faced Booby | 1 | | | SA chasing WTS Unsuccessful | Leach's-3 |
| 19 | 1250 | Leach's SP | 1 | | | Imm | JFP-7 |
| | 1255 | frigate | 2 | | | | ST-46 |
| | 1259 | JFP Petrel | 1 | | | | Artic-2 |
| SF | 1310 | frigate | 1 | | | Searching | BSP-2 |
| 77 | | Sooty Tern | 10 | | | Movie | |
| | | JFP Petrel | 1 | | | dark | |
| F | 1325 | Wedgetail | 3 | | | dark | |
| | | Sooty Tern | 20±5 | | | Imm one seen | |
| | | Wedgetail | 20±5 | | | Movie | |
| | | Artic. Tern | 1 | | | 1 Light - 19 dark | |
| | | JFP Petrel | 3 | | | Artic Tern Feeding | |
| MF | 1335 | Wedgetail | 5 | | | Dark | |
| SF | 1350 | Sooty Tern | 5 | | | | 372 |
| TF | 1355 | Sooty Tern | 8 | NW | | | |
| | 1400 | Wedgetail | 2 | | | Dark | |
| 275
209 | 1405 | Leach's SP | 1 | | | | |
| F | 1420 | Wedgetail | 250±25 | | | Light Raft on H2O - close pack. | |
| | 1420 | frigate | 1 | | | Only dark phase seen | |
| | | Sooty Tern | 3 | | | one light. | |
| | 1420 | Bl-Fac Boob | 1 | | | Immature. | |
| | 1425 | Wedgetail | 4 | | | 1 light 3 Dark. | |
| | 1433 | Wedgetail | 2 | | | Dark | |
| | 1436 | Artic? Tern | 1 | | | | |
| | 1436 | BL SP it | 2 | | | | |
| | | Leach's SP | 1 | | | light | |
| | 1437 | Wedgetail | 1 | | | | |
| | 1438 | Jaeger sp | 1 | | | | |
| | 1438 | JFP Petrel | 2 | | | | |
| | 1440 | Red-F Booby | 1 | | | | |
| | 1453 | Shear. P. | 1 | | | | |
| | 1456 | Wedgetail | 1 | | | Dark. | |

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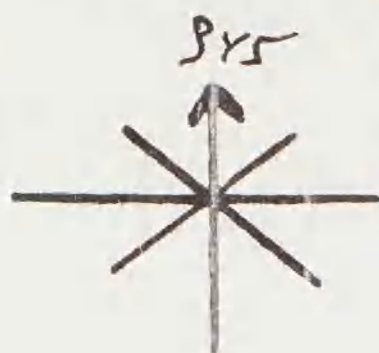


DATE 3 Sept 1967

Pg. # 3

| | time | species | # | dir. | hgt. | remarks | loc. |
|------|-----------|-----------------------|----|------|------|--------------------------|------------------|
| 494 | 1501 | Brown Pet | 1 | | | | Calland - 1 |
| | 1502 | Leach's SP | 1 | | | | S-P - 1 |
| | 1503 | Oceanodroma | 1 | | | | RT - 1 |
| | 1506 | Red P Lark | 3 | | | | RT - 1 |
| | 1512 | Oceanodroma | 2 | | | | RT - 1 |
| | 1518 | Brown Pet | 1 | | | Dark | RT - 1 |
| | 1518 | Jarvis | 1 | | | | RT - 31 |
| | 1519 | Phalarope | 1 | | | | RT - 1 |
| | 1524 | Wedgetail | 3 | | | Dark | RT - 1 |
| F | 1530 | Artic? Tern | 4 | | | Feeding | RT - 1 |
| | | Wedgetail | 3 | | | Dark | 2 Tern up? Jean. |
| | | JFPetrel | 1 | | | | |
| SF | 1535 | Artic? Tern | 1 | | | | RT - 3 |
| | | Sooty Tern | 12 | | | Searching | WTS - 9 |
| | 1537 | Leach's SP | 2 | | | | Artic - 6 |
| | | O. tethys | 1 | | | | JFP - 2 |
| | 1546 | Leach's SP | 1 | | | | ST - 31 |
| | 1557 | Brown Pet | 1 | | | | Leach - 10 |
| SF | 1558 | Sooty Tern | 1 | | | adult | RTTB - 1 |
| | | Artic? Tern | 1 | | | | WTS - 2 |
| | | Wedgetail | 2 | | | Dark | RTTB - 3 |
| | 1558 | Oceanodroma | 3 | | | | 105 |
| 494 | 1559 | Red Tropic | 1 | | | adult | |
| 66 | 1600-1715 | | | | | BREAK | |
| 5050 | 1740 | Wedgetail | 1 | | | Light | |
| FF | 1757 | Oceanodroma | 25 | | | Feeding w/ gasfuge sick. | |
| | 1758 | Leach's SP | | | | underway | |
| | 1802 | Leach's SP | 1 | | | | |
| | 1803 | BL SP Petrel | 1 | | | | |
| | 1805 | O. tethys | 1 | | | | |
| | 1814 | Black SP | 1 | | | | |
| | 1814 | Leach's SP | 2 | | | | |
| | 1825 | Leach's SP | 4 | | | | |
| | 1830 | Black SP | 1 | | | | |
| | 1830 | Leach's SP | 1 | | | | |
| | 1830 | JFPetrel | 1 | | | | |
| | 1839 | | | | | Sunset | |

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| time | species | # | dir. | hgt. | remarks | loc. |
|---------|---------------|---|------|------|-------------------|------|
| 0623 | | | | | Sunset | |
| 0627 | Juergen | 3 | | | Sunrise | |
| 0627 | Red-F Booby | 3 | | | Subadult | |
| 0627 | Bl-Fac Booby | 1 | | | Immature | |
| 0628 | Oceanodroma | 1 | | | | |
| 0628 | Shear-Pet | 1 | | | | |
| 0635 | Wedgetail | 1 | | | Light | |
| 0636 | Wedgetail | 3 | | | 2 Light 1 dark | |
| 0642 | Wedgetail | 1 | | | Light | |
| 0643 | Juergen | 2 | | | Light | |
| 0650 | Wedgetail | 1 | | | Light | |
| 0655 | Kerm Pet | 1 | | | Dark | |
| 0655 | Black SP | 1 | | | | |
| 0701 | Oceanodroma | 4 | | | | |
| 0702 | Wedgetail | 2 | | | Light | |
| 0705 | O. tethys | 1 | | | | |
| 0705 | Phalarope | 2 | | | Dark | |
| 0710 | Wedgetail | 2 | | | Light | |
| 0710 | Wedgetail | 1 | | | Light feeding | |
| 0711 | Bl-Fac Booby | 1 | | | Immature | |
| 0718 | Wedgetail | 1 | | | Dark | |
| 0720 | Phalarope | 1 | S | | | |
| 0720 | Wedgetail | 2 | | | Light | |
| 0731 | Wedgetail | 1 | | | Light | |
| 0744 | Kerm. Petrel | 1 | | | DARK | |
| 0754 | Oceanodroma | 2 | | | | |
| 0756 | Phalarope | 1 | S | | | |
| 0804 | Wedgetail | 2 | | | Light | |
| 0805 | JF Petrel | 1 | | | | |
| 0812 | Wedgetail | 3 | | | dark | |
| 0812 | Kerm Pet | 1 | | | dark | |
| 0816 | Wedgetail | 4 | | | dark 3 light | |
| 0818 | Black S.P. | 1 | | | | |
| 0820 | Wedgetail | 2 | | | 1 light 1 dark | |
| 0824 | Phalarope | 2 | | | | |
| TF 0827 | Red Phalarope | 5 | S | | Travelling | |
| SF 0827 | O. tethys | 4 | | | | |
| | Leach's SP | 1 | | | | |
| 0831 | JF Petrel | 1 | | | | |
| 0840 | Wedgetail | 2 | | | Light | |
| 0843 | Wedgetail | 1 | | | dark | |
| SF 0855 | Sooty Tern | 5 | | | | |
| 0904-18 | | | | | Stop | |

J-5
 BF-3
 BF-2
 Ocean-7
 SP-1
 W-29
 KP-3
 BOSP-2
 J-5
 K-1
 ST-5
 B-6
 B-5
 JF-2
 76

SI-MNH-958e
7-28-64

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG -- E



DATE 4 Sept 1967
Pg. # 2

| | time | species | # | dir. | hgt. | remarks | loc. |
|------|------|-----------------|-------|------|------|--|------|
| | 0943 | Kerm Pet | 1 | | | dark | |
| 0940 | 1025 | Frigate | 4 | | | Fish (2 school!) breaking surface | |
| | 1028 | B Lach SP | 1 | | | Capt says shipping ch | |
| | 1032 | Red Phalch | 1 | | | 75±25 D. phids appear to be feeding. | |
| | 1043 | | | | | Movie | |
| | 1045 | 1145 | | | | frigate weekend. | |
| | 1155 | Bl-Face Booby | 2 | | | Turtle - Movie | |
| | 1155 | Swallow | 1 | | | 1st year | |
| | 1223 | | | | | Underway | |
| F | 1238 | Wedgetail | 15 | | | 4 light + dark rest that fall on | |
| | | juv | 1 | | | mt 20. | |
| | 1255 | Bl-Face booby | 1 | | | adult | |
| | 1257 | | | | | Turtle one | |
| F | 1300 | Wedgetail | 50±10 | | | 30 light-30 Dark, mt 20. | |
| | 1320 | Ocean dro | 1 | | | | |
| | 1321 | Mamm Shear | 1 | | | | |
| | 1330 | Kerm Pet | 1 | | | Intermediate. | |
| | 1342 | Kerm Pet | 1 | | | Dark | |
| | 1345 | Ocean dro | 2 | | | | |
| | 1348 | Wedgetail | 1 | | | Dark. | |
| | 1351 | Wedgetail | 2 | | | light | |
| | 1351 | Phalarope | 1 | | | mt 20. | |
| | 1410 | Mamm Shear | 1 | | | | |
| | 1415 | Wedgetail | 2 | | | 1 light + 1 Dark. | |
| | 1430 | 55 | | | | Rain | |
| | 1435 | Leach's Tyre | 1 | | | | |
| 1455 | 1501 | Wedgetail | 1 | | | One Martin | |
| | 1507 | Shear Pet | 2 | | | Dark | |
| | 1516 | Wedgetail | 1 | | | Dark | |
| | 1521 | Wedgetail | 1 | | | Dark | |
| | 1530 | Black SP | 3 | | | Light | |
| | 1531 | Red-F Booby | 3 | | | subadult | |
| | 1540 | Blue-Face B | 1 | | | Immature | |
| | 1545 | Wedgetail | 3 | | | 2 dark | |
| | 1546 | Wedgetail | 2 | | | light | |

DATE 7 Sept 1967
Pg. # 3



| time | species | # | dir. | hgt. | remarks | loc. |
|------|------------------------|---|------|------|---------------------------------|------|
| 1545 | | | | | 2055 BB Pilot whale? | |
| 1546 | Red-bellied Tropicbird | 1 | | | adult | |
| 1600 | 1785 | | | | Stop Obs. On Station | |
| 1726 | Wedgetail | 1 | | | Light | |
| 1737 | Phalarope | 1 | | | | |
| 1742 | Leach's Type | 1 | | | | |
| 1757 | | | | | Underway. | |
| 1808 | Wedge Tail | 1 | | | Light | |
| 1828 | Shear Pet | 1 | | | | |
| 1830 | Wedgetail | 2 | | | Light | |
| 1839 | | | | | Sunset. | |

Red-b-1
 WP-1
 Ph-1
 Lt-1
 SP-1

8

184
 2



DATE 5 Sept 1967

Pg. # 1

| | time | species | # | dir. | hgt. | remarks | loc. |
|----|------|----------------|----|------|------|--|------|
| | 0622 | | | | | Summary | |
| TF | 0627 | Red-F Booby | 29 | | | 1st year - Large spread out group at least | |
| | | Wedgetail | 15 | | | light phase 20 of RFB followed ship all | |
| | | Bl-face Booby | 1 | | | days | |
| | 0630 | Artic? Tern | 2 | | | Imm. | |
| | 0638 | Bl-face Booby | 1 | | | | |
| TF | 0645 | Bl-face Booby | 5 | | | adult orange bill | |
| | 0659 | Manx Shear | 1 | | | 1st year | |
| F | 0712 | Red-F Booby | 18 | | | 1st year joined other | |
| | 0712 | Shear | 1 | | | Marie | |
| | | Pan freezer | 1 | | | | |
| MF | 0715 | Wedgetail | 5 | | | Light - Marie | |
| | 0720 | | | | | Turtle | |
| | 0737 | Red-bill Tropi | 1 | | | Ad | |
| | 0740 | Oceanodroma | 1 | | | | |
| | 0740 | Phalarope | 1 | | | | |
| | 0745 | Phalarope | 2 | | | | |
| | 0749 | Red-bill Tropi | 1 | | | | |
| | 0818 | Phalarope | 3 | | | Ad | |
| | 0845 | Kerm Pet | 1 | | | Dark | |
| | 0905 | Red-bill Tropi | 1 | | | | |
| F | 0912 | Red Phalarope | 7 | | | on Natural slick | |
| | 0912 | Tern | 2 | | | Marie | |
| | 0920 | Red Phalar | 1 | | | One Turtle | |
| | 0923 | | | | | | |
| | 0955 | Red Phalar | 1 | | | | |
| | 1015 | Bl-Face Boob | 1 | | | 1st year | |
| | 1015 | Wedgetail | 1 | | | light | |
| | 1035 | Red Phalar | 2 | | | | |
| | 1045 | | | | | | |
| | 1310 | Artic? Tern | 1 | | | Break on station 1250 underway | |
| | 1323 | Red Phalar | 1 | | | | |
| | 1345 | Phalarope | 1 | | | | |
| | 1356 | Phalarope | 1 | | | | |
| | 1407 | Kerm. Pet | 1 | | | Dark | |
| | 1418 | Red Phalar | 1 | | | on fire | |
| | 1434 | Phalarope | 1 | | | | |
| | 1438 | | | | | 10 Centaureans | |
| | 1443 | Bl-Face Boob | 1 | | | ad on H ₂ O - Marie | |
| | 1450 | Bl-Face Boob | 3 | | | too far to tell age. | |
| | 1450 | Phalarope | 1 | | | | |
| | 1458 | O. tellings. | 1 | | | | |
| | 1505 | Swallow | 1 | | | | |
| | 1511 | Artic? Tern | 1 | | | | |
| | 1514 | Oceanodroma | 4 | | | | |

2 Fair play view Dick to appear
 to have been in the
 Red-bill?

turn - 2
 RTB - 47
 WTS - 21
 RFB - 12
 Artic - 4
 Marie - 1
 Swallow - 1
 Shear - 1
 AS - 1
 RFB - 3
 Ocean - 5
 Phalar - 10
 RFB - 15
 AP - 2
 tellings - 1
 124



DATE 19 Sept 1967
Pg. # 1

| | time | species | # | dir. | hgt. | remarks | loc. |
|----|------|------------------|----|------|------|---|------|
| | 0559 | | | | | Sunrise. | |
| | 0607 | Sooty Tern | 2 | | | | |
| | 0618 | Sooty Tern | 2 | | | adult | |
| | 0623 | Sooty Tern | 1 | | | adult | |
| | 0624 | Sooty Tern | 1 | | | | |
| | 0625 | Red + Booby | 1 | | | Subadult | |
| TF | 0628 | Sooty Tern | 5 | NE | | | |
| | 0629 | Shear-Pet | 1 | | | | |
| | 0630 | Blue + Booby | 1 | | | adult | |
| | 0633 | Sooty Tern | 2 | | | | |
| | 0635 | Pink-f Shear | 1 | SE | | | |
| | 0636 | Red-bill Trop | 1 | | | adult. | |
| | 0640 | Sooty Tern | 4 | N | | adult | |
| | 0645 | Pink-f Shear | 1 | SE | | | |
| | 0646 | Sooty Tern | 4 | S | | | |
| | 0647 | Sooty Tern | 1 | | | adult | |
| | 0648 | Sooty Tern | 1 | N | | | |
| | 0649 | R-f Booby | 3 | | | | |
| | 0650 | R-f Booby | 1 | | | | |
| | 0653 | Sooty Tern | 3 | S | | adult White phase | |
| | 0654 | Sooty Tern | 2 | | | ad | |
| | 0705 | Bl-f Booby | 2 | | | ad | |
| | 0708 | Sooty Tern | 2 | | | ad | |
| | | L-T Jaeger | 1 | | | Charming Tern | |
| | 0719 | Sooty Tern | 2 | | | | |
| | 0719 | Shear-Pet | 1 | | | | |
| | 0723 | R-f Booby | 1 | | | Ad | |
| F | 0730 | R-f Booby | 20 | | | all all dark but with baby blue (adult-colored) bill | |
| | | Sooty Tern | 7 | | | Boobies feedings | |
| | | B-face Booby | 15 | | | ad | |
| | 0735 | Booby | 1 | | | ad | |
| | 0745 | R-F Booby | 4 | | | adult | |
| SF | 0753 | Sooty Tern | 37 | | | 3 all Subadult Ad with dark tail | |
| SF | 0756 | R-F Booby | 11 | | | | |
| | | B-Face Boob | 2 | | | | |
| | 0805 | | | | | Ad | |
| | 0810 | R-f Booby | 2 | | | 4 Killen W. alar. | |
| | 0815 | | | | | Stop Ad Baby's bill - Dark - white regular | |
| | 0818 | Leach's SP | 1 | | | Ad | |
| | 0830 | | | | | Underway | |
| | 0844 | R-f Booby | 2 | | | Light phase Ad Dark Tail | |

ST-76

REB-45

SP-2

RP-20

Pink 2

Red-fall

ETT-1

BSP-1

Leach's 1

149

28
121



DATE 19 Sept 1967
Pg. # 2

| | time | species | # | dir. | hgt. | remarks | loc. |
|----|---------|--------------|--------|------|------|-------------------------|------|
| FF | 0853 | Shore Pet | 1 | | | | |
| | 0855 | R-F Booby | 12 | | | feeding | |
| | | Booty Tern | 4 | | | | |
| | 0858 | D-R Petrel | 1 | | | | |
| SF | 0908 | Sooty Tern | 2 | | | | |
| | 0915 | R-F Booby | 12 | | | NAYNAY | |
| | | frigate | 2 | | | | |
| FF | 0915-40 | frigate | 5 | | | Feeding | |
| | | Bl-F Booby | 25 | | | | |
| | | Red-F Booby | 325±50 | | | 325±50 | |
| | 0917 | W-Wing Pet | 1 | | | | |
| TF | 0945 | Sooty Tern | 12 | 5 | | | |
| | 0945 | Artic Tern | 1 | | | adult | |
| SF | 1000 | Artic Tern | 5 | | | adults | |
| | | Sooty Tern | 110±10 | | | | |
| | | R-F Booby | 8 | | | | |
| | | B-F Booby | 1 | | | 650±100±20 | |
| | | frigate | 3 | | | | |
| SF | 1010 | R-F Booby | 155±25 | | | | |
| | | B-Face Booby | 20 | | | | |
| | | frigate | 1 | | | | |
| | | Sooty Tern | 3 | | | | |
| SF | 1018 | R-F Booby | 150±5 | | | Distant Mating | |
| | | booby | 50 | | | | |
| FF | 1025 | R-F Booby | 200±10 | | | feeding Allison Trina | |
| | | B-F Booby | 75±10 | | | | |
| | | Sooty Tern | 10 | | | Movie | |
| | | Anduln's Sh | 6 | | | Adult | |
| | | May Frig | 5 | | | | |
| | 1030 | 1145 | | | | Break | |
| | 1205 | | | | | Begin Nelson's Tow 210' | |
| | 1230 | May Frig | 2 | | | ad + ♀ Movie | |
| | 1240 | Sooty Tern | 1 | | | adult | |
| | 1241 | Oceanodroma | 1 | | | | |

SP-1
RFB-962
ST-142

DRP-1

frigate 11

May F-7

BFB-121

WAP-1

Artic-6

booby-50

Anduln's-6

Oceanodroma-1

162
142
151
455
34
1089

1309 34



DATE 5 Sept 1967
Pg. # 2

| time | species | # | dir. | hgt. | remarks | loc. |
|-----------------|-----------------------|--------------|------|------|------------------|--------|
| 1523 | Shear-Pet | 1 | | | | |
| 1530 | Mamm Shear | 1 | | | | |
| 1534 | Red-Foot B | 1 | | | 2nd year. | S-P-1 |
| 1600 | - 1715 | | | | Break On station | Map 1 |
| 1716 | Oceanodroma | 1 | | | | 15 B 1 |
| 1753 | | | | | Underway | 15 B 1 |
| 1815 | Red-Foot B | 1 | | | | 15 B 1 |
| 1820 | Wedgetail | 1 | | | light | 15 B 1 |
| MF 1830 | Sooty Tern | 10 | | | | 15 B 1 |
| 1830 | R-T Jaeger | 1 | | | | 15 B 1 |
| 1843 | | | | | Sunset. | 15 B 1 |



DATE 6 September 1967
Pg. # 1

| | time | species | # | dir. | hgt. | remarks | loc. |
|----|-----------------|----------------------------|--------------|------|------|------------------------------|----------|
| | 0629 | | | | | Sunrise | |
| MF | 0630 | Red-F Booby | 12 | | | Subadult 1st year | |
| | 0638 | Bl-F Booby | 1 | | | adult | |
| | 0638 | Oceanodroma | 1 | | | | |
| | 0638 | Bl-Face Boob | 1 | | | | |
| | 0704 | Oceanodroma | 1 | | | 1st year | |
| | 0704 | Shear-Pet | 1 | | | | |
| | 0710 | Jaeger | 1 | | | | |
| | 0715 | | | | | Rain | |
| | 0755 | Red-bill Tropic | 1 | | | | RFB-20 |
| | 0755 | Red-bill Tropic | 1 | | | | BTB-8 |
| | 0756 | Phalarope | 1 | | | | Phal-2 |
| | 0808 | Phalarope | 3 | | | | SP-2 |
| | 0815 | Phalarope | 1 | | | | Jaeger-1 |
| | 0820 | Red Phalarope | 2 | | | | R-BT-1 |
| | 0830 | | | | | Rain/Stop | Phal-6 |
| FF | 0843 | Frigate | 4 | | | Distant Prob. feeding | RPH-25 |
| | | Red Terns | 25 ± 5 | | | | Phal-4 |
| FF | 0940 | Booby sp | 20 ± 5 | | | Distant feeding. | Tern-20 |
| | 0958 | Red Phala | 3 | | | | Booby-20 |
| | 1007 | Many Shear | 1 | | | | Many-14 |
| | 1030 | Red Phala | 2 | SE | | | Whim-4 |
| | 1039 | Red Phalarope | 1 | E | | | |
| | 1042 | Red Phalarope | 3 | E | | | |
| | 1045-1200 | | | | | Break On station underway | |
| | 1226 | | | | | | |
| | 1228 | Red Phala | 2 | | | | |
| | 1320 | Bl-Face Boob | 1 | | | Sun | |
| | 1320 | Red Phala | 1 | | | | |
| | 1343 | Red Phala | 2 | | | alt 20 | |
| | 1355 | Many Shear | 1 | | | | |
| | 1415 | Red Phala | 2 | | | | |
| | 1426 | Shear-Pet | 1 | | | | |
| | 1440 | Bl-Face Boob | 1 | | | | |
| | 1446 | Red Phala | 1 | | | | |
| | 1448 | Red Phala | 1 | | | | |
| | 1453 | Whimbrel | 4 | SE | | | |
| | 1500 | Red Phala | 3 | SE | | | |
| | 1500 | Many Shear | 2 | | | | |
| | 1525 | Red Phala | 2 | SE | | | |
| | 1530 | Phalarope | 1 | | | | |
| FF | 1533 | Bl-face Booby | 4 | | | Bait fish jumping. | |
| | | Red-F Booby | 8 | | | 1st year | |
| | | Many Shear | 10 | | | | |



| time | species | # | dir. | hgt. | remarks | loc. |
|-----------|------------|---|------|------|---|------|
| 1540 | frigate | 1 | | | | |
| 1545 | Br Booby | 1 | | | | |
| 1545 | | | | | School 100± Mullet feeding on FF no tuna seen Shipjack | |
| 1548 | | | | | Another school species? - 5 small Break in station | |
| 1600-1715 | | | | | | |
| 1730 | Phalarope | 1 | | | | |
| 1744 | Phalarope | 1 | | | | |
| 1800 | Phalarope | 1 | | | | |
| 1808 | | | | | Underway 750 | |
| 1840 | Red Phala | 3 | | | | |
| 1841 | Black Tern | 1 | | | | |
| 1842 | | | | | Sunset | |

frigate - 1
 BB - 1
 Phal - 3
 R Ph - 3
 BT - 1

 9



DATE 7 Sept 1967
Pg. # 1

| time | species | # | dir. | hgt. | remarks | loc. |
|---------|-------------------------|--------------|---------------|----------------|--------------------------------|------|
| 0620 | immature | 1 | SW | --- | Immature Bayin 065. | |
| 0626 | Tern Black | 4 | SW | | | |
| 0631 | BL Tern | 1 | SW | | | |
| 0633 | BL Tern | 1 | SW | | | |
| 0633 | Br. Booby | 1 | SW | | | |
| 0636 | Br Booby | 1 | SW | | | |
| 0636 | BL Tern | 1 | SW | | | |
| 0638 | BL Tern | 2 | SW | | | |
| 0638 | Br Booby | 1 | SW | | | |
| 0643 | BL Tern | 4 | SW | | | |
| 0643 | Br. Booby | 1 | SW | | | |
| 0650 | Br Booby | 1 | SW | | Immature | |
| 0652 | Br. Booby | 2 | SW | | | |
| 0652 | frigate sp. | 1 | ○ | | | |
| 0656 | Br Booby | 4 | SW | | 2 Imm 2 Subadult | |
| 0710 | Phalarope | 4 | | | on H ₂ O | |
| 0712 | Br. Booby | 3 | | | Imm. | |
| TF 0715 | Br Booby | 7 | SW | | | |
| 0726 | Br Booby | 2 | SW | | | |
| 0726 | BL Tern | 2 | SW | | | |
| 0735 | Br Booby | 4 | S | | | |
| 0743 | Red Phala. | 1 | | | | |
| 0746 | | | | | 1/2 40° | |
| 0800 | Br Booby | 1 | | | | |
| 0803 | Phalarope | 1 | | | on H ₂ O | |
| 0803 | BL Stompt | 1 | | | | |
| 0804 | Br Booby | 1 | | | Imm. | |
| 0820 | BL Stom pt | 1 | | | | |
| 0837 | frigate | 1 | | | | |
| 0850 | Frigate Br's | 1 | | | Imm. | |
| 0855 | Raushing | | | | | |
| 0857 | Br. Booby | 2 | | | 10 S. graffmani | |
| 0902 | | | | | 5 Stenella graffmani | |
| 0930 | | | | | Lease. | |

15
 31
 1
 2
 2
 5
 1
 57



DATE 14 Sept 1967
Pg. # 1

| time | species | # | dir. | hgt. | remarks | loc. |
|---------|---------------------|----|------|------|-----------------|-----------|
| 0830 | | | | | Begin obs. | |
| 0835 | Phalarope | 2 | | | | |
| 0840 | Nat Phala | 1 | | | | |
| 0841 | Br Pelican | 1 | | | | |
| 0846 | Phalarope | 2 | | | | |
| 0858 | Frigate | 3 | | | | Phal-22 |
| 0902 | Frigate | 1 | | | | N Phal-74 |
| 0902 | phalarope | 1 | | | | R Phal-1 |
| 0903 | Mag Frig | 1 | | | Ad ♀ | B Phal-1 |
| 0930 | | | | | Coar | |
| 1145 | | | | | Resume | |
| 1200 | Bl-Foot Boob | 1 | | | Imm | |
| 1201 | Booby up | 1 | | | | |
| 1218 | Bl-Face Boob | 1 | | | adult | |
| 1318 | Bl Tern | 2 | ESE | | winter plumage. | |
| 1320 | Tern | 1 | | | | |
| 1326 | Red Phala | 1 | | | | |
| 1340 | Bl Tern | 1 | | | | |
| 1346 | Phalarope | 2 | | | | |
| 1350 | Bl-Face Booby | 1 | | | | |
| 1357 | Bl. Tern | 1 | | | Subadult. | |
| F 1405 | N. Phala | 70 | 40 | | on H2O feeding | |
| 1445 | | | | | Coar | |
| 1715 | | | | | Resume | |
| 1721 | tern up | 2 | | | | |
| 1721 | Manx Sh | 1 | | | | |
| 1726 | Manx Sh | 4 | | | | |
| 1726 | Oceanodroma | 1 | | | | |
| 1730 | W. T. Sh | 1 | S | | light | |
| 1732 | Phalarope | 2 | | | | |
| 1736 | Phalarope | 2 | | | | |
| TF 1739 | Phalarope | 5 | S | | | |
| 1739 | Oceanodroma | 1 | | | | |
| 1743 | Phalarope | 3 | | | | |
| 1743 | Manx Sh | 3 | S | | | |
| 1743 | Wedgetail | 3 | | | light | |
| 1749 | tern sooty | 4 | | | | |
| 1749 | Wedgetail | 1 | | | light | |
| 1749 | Phalarope | 3 | | | | |
| 1751 | N. Phala | 3 | | | on H2O | |
| FF 1755 | Sooty Tern | 7 | | | | |
| | Wedgetail | 3 | | | | |
| | Manx Sh | 2 | | | light Feeding. | |

Phal-22
N Phal-74
R Phal-1
B Phal-1
Frig-4
MagF-1
B Foot B-1
Booby-1
Bl Face-2
Bl Tern-4
Tern-3
Manx-10
Wedgetail-7
W T Sh-8
ST-11

145
112



DATE 15 Sept 1967
Pg. # 1

| | time | species | # | dir. | hgt. | remarks | loc. |
|------|------|-----------------------|----------|------|------|--|------|
| | 0630 | | | | | Begin | |
| FF | 0635 | Bl-U Shear | 25 ± 5 | | | | |
| FF | 0640 | Bl-U Shear | 60 ± 10 | | | | |
| FF | 0648 | Bl-U Shear | 50 ± 5 | | | | |
| | 0648 | Bl-fac Booby | 3 | | | | |
| | 0649 | Phalarope | 1 | | | | |
| | 0650 | Wedgetail | 3 | | | | |
| F | 0655 | Bl Storm Pet | 12 | | | light following ship | |
| FF | 0700 | Bl-U Shear | 90 ± 10 | | | | |
| | 0715 | | | | | | |
| 0715 | 0716 | Leach's SP | 1 | | | 10 ± Tursiops Movie | |
| | 0720 | | | | | Entered calm area Thick with medusae + | |
| | 0735 | Prothon. Wink | 1 | | | Star | |
| FF | 0740 | Bl-U Shear | 95 ± 10 | | | adult | |
| | 0745 | Wedgetail | 1 | | | 1 Turtle | |
| | 0746 | Bl-U Shear | 1 | | | dark | |
| | 0748 | Bl-fac Booby | 1 | | | 1st Year | |
| | 0748 | R-F Booby | 2 | | | | |
| | 0803 | Term Pet | 1 | | | Dark. | |
| | 0822 | | | | | Underway S 180° | |
| | 0835 | | | | | Turtle (1) Movie | |
| F | 0837 | Bl-U Shear | 11 | | | on H ₂ O | |
| FF | 0843 | Bl-U Shear | 75 ± 10 | | | | |
| | 0853 | Leach's SP | 1 | | | | |
| | 0853 | | | | | Turtle (2) | |
| FF | 0853 | Bl-U Shear | 45 ± 5 | | | | |
| FF | 0859 | Bl-U Shear | 175 ± 10 | | | feeding | |
| F | 0901 | Bl-U Shear | 60 ± 10 | | | on H ₂ O | |
| | 0903 | Wedgetail | 1 | | | dark. | |
| F | 0904 | Bl-U Shear | 64 | | | on H ₂ O | |
| | 0904 | Wedgetail | 1 | | | Right | |
| F | 0907 | Bl-U Shear | 70 ± 5 | | | Turtle (1) | |
| F | 0908 | Bl-U Shear | 35 ± 5 | | | on H ₂ O | |
| | 0908 | Leach's SP | 2 | | | on H ₂ O | |
| F | 0910 | Bl-U Shear | 75 ± 10 | | | on H ₂ O | |
| FF | 0912 | Bl-U Shear | 100 ± 10 | | | feeding | |
| F | 0915 | Bl-U Shear | 30 ± 5 | | | on H ₂ O | |
| F | 0920 | Bl-U Shear | 90 ± 10 | | | on H ₂ O | |
| | 0920 | | | | | 4 Tursiops | |
| | 0925 | | | | | Turtle (1) | |
| F | 0930 | Bl-U Shear | 40 ± 10 | | | on H ₂ O | |

WIS 6
PR-1
BV Sh-1150
B+B-4
BOSP-12
Leach's-4
1181

1
45
235
129
335
1150

SI-MNH-958e
7-28-64

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG -- E



DATE 15 Sept 1967
Pg. # 2

| time | species | # | dir. | hgt. | remarks | loc. |
|-----------|---------------|----------|------|------|----------------------------|------|
| F 0937 | Bl-vent Shear | 150 ± 20 | | | on H ₂ O | |
| F 0950 | Bl-vent Shear | 37 | | | | |
| | Wedgetail | 3 | | | on H ₂ O | |
| P 1004 | Bl-vent Shear | 12 | | | light | |
| 1004 | Tern sp | 1 | | | on H ₂ O | |
| F 1006 | Oceanodrom | 12 | | | on H ₂ O | |
| 1010 | | | | | | |
| 1020 | R-F Booby | 1 | | | c. 1950 | |
| 1030-1145 | | | | | 1st year | |
| 1206 | | | | | Spore Obs on Station | |
| 1236 | Bl-Fa Booby | 4 | | | under way 185° | |
| 1245 | | | | | adult | |
| 1252 | Bl-vent Sh | 2 | | | Turtle(s) | |
| 1305 | Leach's SP | 1 | | | | |
| 1310 | Red Phala | 1 | | | | |
| 1311 | Phalarope | 2 | | | | |
| 1330 | BL Storm Pet | 2 | | | | |
| | Leach's SP | 1 | | | | |
| 1335 | Red Phala | 1 | | | | |
| 1339 | Bl-v Shear | 1 | | | | |
| 1340 | Red Phala | 2 | | | | |
| 1344 | Phala | 3 | | | | |
| 1346 | Pan Jaeger | 2 | | | light | |
| 1347 | Shear-Pet | 2 | | | | |
| 1348 | Pan Jaeger | 1 | | | | |
| 1348 | Phalarope | 3 | | | | |
| F 1351 | Wedgetail | 7 | | | light on H ₂ O. | |
| 1358 | Red Phala | 2 | | | | |
| 1440 | Phalarope | 4 | | | | |
| 1443 | Oceanodrom | 4 | | | | |
| 1459 | Tern sp | 1 | | | | |
| F 1504 | Phalarope | 7 | | | on H ₂ O | |
| 1530-1700 | | | | | on Station Break | |
| 1721 | | | | | | |
| 1726 | Phalarope | 4 | | | under way | |
| 1727 | Red Phala | 1 | | | | |
| 1737 | Wedgetail | 2 | | | light | |
| 1745 | Cliff Swall | 1 | | | Imm. | |

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG -- E

DATE 15 Sept 1967
Pg.# 3



| time | species | # | dir. | hgt. | remarks | loc. |
|------|-----------|---|------|------|---|------|
| 1805 | Wedgetail | 2 | — | — | Light over Shipjack school perhaps
100 fish 2 caught | |
| 1810 | | | | | Sunset | |

| | |
|-----------|-------------|
| 1180 | 107 |
| 277 | 1352 |
| <u>59</u> | <u>1459</u> |

SI-MNH-958e
7-28-64

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG -- E

DATE 16 Sept 1967
Pg. #



| time | species | # | dir. | hgt. | remarks | loc. |
|-----------|---------------|---|------|------|----------------------------|------|
| 0558 | | | | | Sunrise | |
| 0620 | Storm Pet | 2 | | | | |
| 0622 | Storm Pet | 1 | | | | |
| 0625 | Red F Body | 1 | | | 1st year | |
| 0639 | Tern sp | 1 | | | | |
| 0640 | Oceanodroma | 2 | | | | |
| 0650 | Oceanodroma | 2 | | | | |
| 0652 | BL Storm Pet | 1 | | | following ship | |
| 0700 | BL-face Boob | 1 | | | adult. | |
| 0706 | Oceanodroma | 3 | | | | |
| 0707 | Wedgetail | 1 | | | Light | |
| 0714 | Leach's SP | 1 | | | | |
| 0715 | O. Tethys | 2 | | | Feeding on ship's garbage. | |
| | BL Storm Pet | 1 | | | | |
| 0720 | BL-face Booby | 2 | | | adult. | |
| 0723 | Oceanodroma | 4 | | | | |
| 0730 | Oceanodroma | 2 | | | | |
| 0732 | Phalarope | 1 | | | | |
| 0736 | Kerm. Petrel | 1 | | | Light | |
| 0750 | BL-face Boob | 1 | | | | |
| 0756 | Manx Shear. | 1 | | | | |
| 0808 | O tethys | 1 | | | | |
| 0808 | Red Phalar | 1 | | | | |
| 0813-18 | | | | | Rain | |
| 0828 | O. Tethys | 1 | | | | |
| 0830 | Shear Pet | 1 | | | | |
| 0843 | Oceanodroma | 1 | | | | |
| 0852 | Oceanodroma | 2 | | | | |
| 0853 | booby | 3 | | | | |
| 0855 | Kerm Pet | 1 | | | dark. | |
| 0913 | BO Storm Pet | 1 | | | | |
| 0914 | O. Tethys | 2 | | | | |
| 0935 | BL-face Boob | 1 | | | adult | |
| 0954 | Red Phalar | 1 | | | | |
| 1002 | Fringillid | 1 | | | | |
| 1013 | BL-face Bo | 3 | | | adult. | |
| 1030-1200 | | | | | Break On Station | |
| 1205 | | | | | Underway | |
| 1215 | Jaeger | 1 | | | | |
| 1218 | O Tethys | 1 | | | | |
| 1259 | O Tethys | 2 | | | | |
| 1300 | | | | | Rain | |
| 1308 | Red Phalar | 1 | | | | |

SC - 19
 RFB - 1
 BFB - 8
 Booby - 3
 Tern - 1
 MSP - 3
 WTB - 1
 Leach's - 1
 Tethys - 9
 Phalar - 1
 KP - 2
 RP - 3
 Manx - 1
 S-P - 1
 Jac - 1
 Fring - 1
 56



DATE 16 Sept 1967
Pg. # 2

| time | species | # | dir. | hgt. | remarks | loc. |
|-----------|-------------|---|------|------|-----------------------|------|
| 1348 | Shorebird | 4 | | | | |
| 1405 | Oceanodroma | 2 | | | | |
| 1420 | Wedgetail | 1 | | | | |
| 1425 | Green Heron | 1 | | | light | |
| 1455 | Oceanodroma | 1 | | | Imm Landed thrice | |
| 1525 | Term Pet | 2 | | | Dark | |
| 1540 | | | | | | |
| 1600-1715 | | | | | Rain Top | |
| 1725 | Barn Swall | 1 | | | Care Obs. on station. | |
| 1730 | Oceanodroma | 3 | | | Imm. collected | |
| 1733 | Shear-Pet | 1 | | | | |
| 1756 | | | | | Underway. | |
| 1808 | | | | | Sunset | |

Shore - 4

Ocean - 6

WTS - 1

Barn - 1

G Heron - 1

KL - 2

S-P - 1

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SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG -- E

DATE 17 Sept 1967
Pg. # 1

| time | species | # | dir. | hgt. | remarks | loc. |
|-----------|---------------|---|------|------|--------------------------------|------|
| 0558 | | | | | Sunrise | |
| 0620 | Bl-Face Booby | 1 | | | Subadult | |
| 0622 | Bl Stormp | 1 | | | | |
| | Oceanodroma | 1 | | | | |
| 0625 | R-F Booby | 1 | | | 1st year | |
| 0635 | Shear-Pet | 1 | | | | |
| 0645 | Red-bill/Trop | 1 | | | | |
| 0653 | Bl-Face Booby | 1 | | | adult | |
| 0726 | Shear-Pet | 1 | | | | |
| 0745 | Oceanodroma | 1 | | | | |
| 0800 | Bl-Face Boob | 1 | | | Lesser Landed on ship briefly. | |
| 0814 | Bl-Face Boob | 3 | | | Imm | |
| 0815 | Artic Tern | 1 | | | | |
| 0818 | Bl Stormp | 1 | | | | |
| 0845 | Shear-Pet | 1 | | | | |
| 0845 | Oceanodroma | 1 | | | | |
| 0856 | Shear-Pet | 1 | | | | |
| 0912 | Bl Stormp | 1 | | | | |
| 0918 | Shear-Pet | 1 | | | | |
| 0928 | Na Phala | 1 | | | | |
| 0930 | Bl-Face Boob | 1 | | | adult | |
| 1006 | Phalarope | 1 | | | | |
| 1013 | O. Tethys | 1 | | | | |
| 1029 | Kerm Pet | 1 | | | Dark. | |
| 1030-1200 | | | | | | |
| 1226 | Pink-F Shear | 1 | SE | | Break during station | |
| 1245 | Shear-Pet | 1 | | | | |
| 1252 | Phalarope | 1 | | | | |
| 1301 | Red Phala | 1 | | | | |
| 1325 | Red Phala | 1 | | | | |
| 1328 | Pink-F Sh | 2 | SE | | | |
| 1337 | Pink-F Sh | 1 | SE | | | |
| 1356 | Red Phala | 1 | | | | |
| 1357 | Oceanodroma | 1 | | | | |
| 1403 | Artic Tern | 2 | SE | | | |
| 1422 | Pink-F Sh | 1 | SE | | | |
| 1428 | Bl Stormp | 1 | | | | |
| 1435 | Phalarope | 2 | | | | |

BF B - 17

AD SP - 4

Oceanodroma

RFB - 1

S-P 6

R-bill - 1

Artic - 3

AD - 1

Phala 4

SP - 3

SP - 5

SP - 1

SP - 1

SP - 1

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7-28-64

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG -- E



DATE 17 Sept 1967
Pg. # 2

| time | species | # | dir. | hgt. | remarks | loc. |
|-----------|--------------|---|------|------|------------------|---------|
| 1455 | Phalarope | 2 | | | | Oran-1 |
| 1457 | Shear-Pet | 1 | | | | Phal-3 |
| 1459 | Oceanod | 1 | | | | RP-4 |
| 1503 | Shear-Pet | 1 | | | | S-P-5 |
| 1504 | Red Phalar | 1 | | | | Pink-6 |
| 1510 | Pink-f sh | 1 | SE | | | |
| 1516 | Pink-f sh | 1 | SE | | | |
| 1520 | Pink-f sh | 1 | SE | | | |
| 1531 | Red Phalar | 3 | | | | |
| 1557 | Shear-Pet | 1 | | | | |
| 1600-1700 | | | | | Break in station | |
| 1715 | Phalarope | 1 | | | | Wedge-3 |
| 1718 | Shear-Pet | 1 | | | | RP-1 |
| 1723 | Pink-f sh | 1 | SE | | | |
| 1730 | Pink-f sh | 1 | SE | | | |
| 1738 | Pink-f sh | 1 | SE | | | |
| 1738 | O. telhays | 3 | | | | |
| 1743 | Bl storm pet | 1 | | | | |
| 1748 | | | | | Underway | |
| 1758 | Shear-Pet | 1 | | | | |
| 1807 | | | | | Sunset | |

23



DATE 18 Sept 1969
Pg. # 1

| | time | species | # | dir. | hgt. | remarks | loc. |
|------|------|---------------------------|----------|------|------|---------------------|-----------|
| | 0558 | | | | | Sunrise | |
| | 0615 | R-F Booby | 1 | | | | |
| | 0635 | Shear-Pet | 1 | | | | |
| | 0640 | Wedgetail | 3 | | | light. | PSB-11 |
| | 0648 | Wedgetail | 1 | | | light | S-P-1 |
| | 0648 | Oceanodroma | 1 | | | | WTS-6 |
| | 0700 | Oceanodroma | 1 | | | | Ouro-3 |
| | 0705 | | | | | 4 Spinn Whale. | Leach's-2 |
| | 0728 | Leach's SP | 1 | | | | BDSP-1 |
| | 0732 | Wedgetail | 1 | | | light | frig-5 |
| | 0735 | Bl Stamp | 1 | | | | ST-295 |
| FF | 0800 | Frigate | 2 | | | Actively feeding. | Artic-3 |
| | | Sooty Tern | 50 ± 25 | | | | Pink F-4 |
| | | Artic Tern | 1 | | | | RP-4 |
| | 0808 | Pink-F Sh | 1 | SE | | | Phala 11 |
| | 0809 | Phalarope | 3 | | | | Tern 2 |
| | 0822 | Phalarope Tern | 2 | | | | BFB-1 |
| | 0823 | Phalarope | 2 | | | | |
| | 0836 | Pink-F Sh | 1 | SE | | | |
| | 0850 | Red Phala | 1 | SE | | | |
| | 0855 | Red Phala | 1 | SE | | | |
| | 0903 | Phalarope | 2 | SE | | | |
| | 0935 | Frigate | 1 | | | | |
| | 0943 | Phalarope | 2 | SE | | | |
| | 0950 | Wedgetail | 1 | | | light feeding | |
| | 1000 | Red Phala | 1 | SE | | | |
| | 1006 | Red Phala | 1 | SE | | | |
| | 1012 | Phalarope | 2 | SE | | Bred. Underway 1850 | |
| 1030 | 1330 | | | | | | 349 |
| | 1331 | Red-F Booby | 1 | | | | |
| | 1340 | Oceanodroma | 1 | | | Int year | |
| | 1341 | Frigate | 1 | | | | |
| | 1400 | 18 | | | | Stop | |
| FF | 1512 | Frigate | 1 | | | | |
| | | Bl-Face Booby | 1 | | | Searching. | |
| | | Red-F Booby | 1 | | | | |
| | | Artic Tern | 1 | | | | |
| | | Sooty Tern | 25 ± 5 | | | | |
| | 1539 | Pink-F Sh | 2 | SE | | | |
| | 1549 | Leach's SP | 1 | | | | |
| FF | 1558 | Sooty Tern | 120 ± 10 | | | adult Feeding. | |
| | | Artic Tern | 1 | | | | |
| | | Red-Boob | 8 | | | 13rd of Int year | |



DATE 19 Sept 1967
Pg. # 3

| | time | species | # | dir. | hgt. | remarks | loc. |
|----|------|------------------------|----|------|------|-------------------------------|---------|
| | 1245 | R-F Booby | 3 | | | light Ph ad | |
| | 1248 | O. Tattlers | 1 | | | | |
| | 1300 | | | | | | |
| | 1302 | Kerm Pet | 1 | | | Underway Culpepper I in sight | |
| | 1306 | Audubon's Sh | 1 | | | Dark | |
| | 1309 | P. markhami | 1 | | | | |
| | 1310 | Sooty Tern | 1 | | | Ad | RFB-24 |
| | 1325 | Sooty Tern | 2 | | | ad | |
| | 1335 | R-F Booby | 1 | | | Ad Brown Phase | Wing-2 |
| | 1348 | Sooty Tern | 1 | | | ad | |
| | 1349 | Shear Pet | 1 | | | | Kerm 1 |
| | 1350 | O. Tattlers | 1 | | | | Adm-7 |
| | 1356 | R-F Booby | 2 | | | | BLSP-3 |
| | 1357 | Sooty Tern | 1 | | | | ST-37 |
| | 1358 | Frigate sp | 2 | | | | S-P-5 |
| | 1400 | | | | | | frige-2 |
| | 1405 | R-F Booby | 1 | | | Stop | BFB-10 |
| | 1408 | Shear Pet | 1 | | | ad Dark Ph | Ocean-4 |
| | 1409 | Bl-Fac Boob | 2 | | | ad | |
| | 1410 | Sooty Tern | 1 | | | ad | |
| | 1416 | | | | | Underway 155° | |
| | 1426 | Oceanod | 4 | | | | |
| | 1427 | Shear Pet | 1 | | | | |
| | 1428 | P. markhami | 1 | | | | |
| | 1434 | Audubon's Sh | 1 | | | | |
| | 1436 | Bl-Fac Boob | 1 | | | | |
| | 1437 | O. markhami | 1 | | | | |
| | 1438 | Bl-Fac B | 2 | | | Adult | |
| | 1443 | Sooty Tern | 3 | | | adult | |
| TF | 1447 | R-F Booby | 12 | SE | | Towards I 5/2 | |
| TF | 1450 | Sooty Tern | 21 | SE | | " " " | |
| | 1503 | Sooty Tern | 3 | | | adult | |
| | 1514 | Audubon's | 1 | | | | |
| | 1516 | Audubon's | 1 | | | | |
| | 1518 | Audubon's | 1 | | | | |
| | 1519 | Sooty Tern | 2 | | | Adult | |
| TF | 1520 | Sooty Tern | 2 | | | | |
| | 1525 | R-F Booby | 5 | | | 4 Ad Dark Ph 1 SA | |
| | | Bl-Fac Booby | 3 | SE | | | |
| | 1530 | Audubon's | 2 | | | TF Adult | |
| | 1531 | Bl-Fac Booby | 3 | | | Adult | |
| | 1531 | Shear Pet | 1 | | | | |

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DATE 19 Sept 1967
Pg. # 4

| time | species | # | dir. | hgt. | remarks | loc. |
|---------|------------|----|------|------|---|------|
| SF 1543 | Sooty Tern | 33 | | | | |
| 1545 | | | | | 41, 110° | |
| 1549 | Frigate | 1 | | | | |
| 1600 | | | | | Leave obs - on station - off Lladanion
Still on station at sunset. | |



DATE 20 Sept 1967
Pg. # 1

| | time | species | # | dir. | hgt. | remarks | loc. |
|----|------|-----------------|----|------|------|---------------------------------|-------------|
| | 0559 | | | | | Summit | |
| | 0632 | DR-Petrel | 1 | | | All Waved Albatross are adults. | |
| | 0633 | Audubon's S | 1 | | | | |
| | 0633 | bird | 1 | | | | |
| | 0640 | D-r Petrel | 1 | | | | DRP-7 |
| | 0640 | Audubon's S | 1 | | | | Bird-1 |
| | 0653 | Ottery | 1 | | | | |
| | 0703 | Ottery | 1 | | | | |
| | 0712 | Swal-T Gull | 2 | | | | And-5 |
| | 0718 | Audubon's S | 2 | | | | Tetlyp 3 |
| | 0723 | Swal-T Gull | 2 | | | | SW Gull-16 |
| | 0724 | Red-bill Trop | 1 | | | | R-Bill T-2 |
| | 0738 | Bl-Foot Booby | 1 | | | | BL Foot 61 |
| | 0739 | Shear-Pet | 1 | | | | BL Face-1 |
| | 0737 | Red-bill Tropic | 1 | | | | SP-1 |
| F | 0745 | Swal T Gull | 8 | | | adult | |
| | 0750 | Waved Albu | 1 | | | M #20 | |
| | 0753 | Swal-T Gull | 4 | | | | |
| | 0758 | Waved Albu | 1 | | | Movie | |
| | 0815 | | | | | Movie | |
| TF | 0823 | Bl-foot Booby | 22 | S | | Stop | W Albu-3 |
| | 0825 | D-R Petrel | 1 | | | | Pano-3 |
| | 0829 | Bl-foot Booby | 3 | | | Movie Adult | Phila-2 |
| | 0833 | | | | | | May Fring-1 |
| | 0834 | Oceanodrom | 3 | | | Underway | Jac-1 |
| | 0834 | Phalarope | 1 | | | | |
| | 0842 | Waved Albu | 1 | | | | |
| | 0845 | May Fring | 1 | | | Ad 07 | |
| | 0845 | Audubon's S | 1 | | | | |
| TF | 0850 | Bl-Foot Booby | 8 | NW | | Adult | |
| F | 0903 | Bl-foot Booby | 5 | | | cut H 20-Adult | |
| | 0905 | D-r Petrel | 1 | W | | | |
| TF | 0906 | Bl-foot B | 10 | N | | Adult | |
| | 0906 | Jacuzer | 1 | | | | |
| | 0910 | D-r Petrel | 1 | W | | | |
| | 0911 | D-r Petrel | 1 | W | | | |
| | 0918 | D-R Petrel | 1 | W | | | |
| | 0919 | Phalarope | 1 | | | | |
| | 0922 | Bl-Foot Booby | 1 | | | adult Movie | |
| | 0923 | B-Foot Booby | 1 | | | Immature | |
| | 0924 | Bl-Face B | 1 | | | ad | |
| | 0925 | Ottery | 1 | | | | |
| TF | 0931 | Bl-Foot Booby | 10 | S | | Ad 1 Imm | |

10.7



DATE 20 Sept 1967
Pg. # 2

time species # dir. hgt. remarks loc.

| | | | | | |
|------|----------------|---|----|--|----------------------|
| 0934 | Soot-T Gull | 1 | | | Ad |
| 0935 | Bl-foot B | 3 | | | 2 Ad 1 Imm |
| 0940 | Bl-foot B | 2 | | | |
| 0941 | Waved Albat | 1 | E | | |
| 0942 | Waved Albat | 1 | E | | |
| 0948 | Wave Albat | 1 | E | | |
| 0949 | Andersen's Sh | 2 | | | |
| 0950 | Soot-Tail Gull | 1 | | | |
| 0953 | Bl-foot Booby | 3 | S | | |
| 0953 | D-R Petrel | 1 | | | |
| 0957 | Andersen's S | 1 | | | Movie |
| 1002 | Waved Albat | 1 | | | |
| 1004 | O. Tethys | 2 | | | on the o |
| 1007 | Mag. Frig. | 1 | | | Ad 07 |
| 1018 | Waved Albat | 1 | E | | |
| 1018 | Shear-Pet | 1 | E | | |
| 1019 | D-R Petrel | 1 | SE | | |
| 1025 | | | | | Sea Lion or Seal (1) |
| 1028 | D-R Petrel | 1 | | | |
| 1029 | D-R Petrel | 1 | | | |
| 1030 | | | | | Stop for station |
| 1035 | Waved Albat | 1 | | | |
| 1036 | D-R Petrel | 1 | | | |
| 1040 | O. gracilis | 3 | | | feeding noise |
| 1045 | O. Tethys | 2 | | | |
| 1047 | Bl-foot Booby | 2 | | | |
| 1125 | | | | | Seal? or Sea Lion. |
| 1153 | Waved Albat | 1 | | | Movie |
| 1153 | D Tethys | 1 | | | Ad 3 |
| 1154 | Mag Frigate | 1 | | | Near Tower 230° |
| 1155 | | | | | |
| 1202 | Bl-foot Booby | 1 | | | Imm. |
| 1204 | Soot-T Gull | 1 | | | |
| 1208 | Shear-Skua | 1 | | | chasing BFB |
| 1208 | Bl-foot Booby | 1 | | | |
| 1208 | Waved Albat | 2 | | | |
| 1234 | D-R Pet | 1 | | | |
| 1256 | | | | | Underway 170° |
| 1257 | | | | | 3 Sealions |
| 1302 | Bl-foot B | 3 | | | |
| 1304 | Bl-foot B | 1 | | | Ad 20 |

SW Gull - 3
Shear - 1
Bl Foot B
SP - 1
Waved A - 9
Ad - 3
DRP - 6
Tethys 5
Gracilis 3
May F - 2

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DATE 20 Sept 1967
Pg. # 3

| | time | species | # | dir. | hgt. | remarks | loc. |
|----|-----------|---------------|----|------|------|--------------------------|--------------|
| | 1314 | Phalarope | 4 | | | | |
| | 1314 | Bl-foot Boob | 3 | | | | |
| | 1325 | Waved Alba | 1 | | | | |
| | 1337 | Bl-face Boob | 1 | | | Adult | Phala - 14 |
| | 1342 | Swallow-Tail | 2 | | | | N. Phala - 1 |
| | 1343 | Mag Frig | 1 | | | Ad | Bl-foot - 72 |
| | 1343 | Waved Alba | 1 | | | on H2O | Bl-face - 1 |
| | 1346 | Waved Alba | 1 | | | | SW Gull - 9 |
| | 1354 | Bl-foot Boob | 2 | | | | Mag Frig - 2 |
| | 1354 | Swallow-Tail | 1 | | | | frig - 3 |
| | 1358 | Sw-Tail Gull | 4 | | | Ad on H2O Movie | W. Alba - 11 |
| | 1400 | | | | | Stage | DRP - 4 |
| TF | 1403 | Phalarope | 9 | E | | underway. | Ogna 16 |
| | 1413 | | | | | | 132 |
| | 1415 | D-R Petrel | 1 | | | | |
| | 1415 | Waved Alba | 1 | | | | |
| | 1418 | Waved Alba | 1 | | | | |
| | 1426 | D-R Petrel | 1 | | | | |
| | 1432 | Bl-foot Boob | 1 | | | | |
| | 1436 | | 1 | | | Seal? a sea lion. | |
| | 1452 | Waved Alba | 1 | | | | |
| | 1453 | Waved Alba | 1 | | | | |
| | 1454 | Phalarope | 1 | | | | |
| F | 1456 | Bl-foot Booby | 9 | | | on H2O. | |
| F | 1505 | Bl-foot Booby | 11 | | | | |
| | 1512 | Waved Alba | 1 | | | on H2O | |
| | 1514 | Bl-foot Booby | 3 | | | 2 ad 1 imm. | |
| | 1517 | D-R Petrel | 1 | | | | |
| | 1523 | Mag Frigate | 1 | | | Ad | |
| | 1525 | Waved Alba | 1 | | | | |
| | 1539 | Waved Alba | 1 | | | | |
| | 1539 | frigate | 3 | | | | |
| FF | 1545 | O. gracilis | 11 | | | Feeding over Natch slick | |
| | 1546 | Sw-Tail G | 2 | | | ad. | |
| | 1546 | Nor Phal | 1 | | | | |
| | 1556 | Waved Alba | 1 | | | | |
| | 1556 | | | | | 3 sea lions. | |
| | 1559 | Bl-foot Boob | 3 | | | on H2O. | |
| | 1600 | | | | | | |
| FF | 1605 | O. gracilis | 5 | | | Stop Feeding Movie | |
| | 1630-1705 | | | | | Break | |
| | 1716 | D-R Petrel | 1 | | | | |
| FF | 1716 | Bl-ft Booby | 7 | SE | | To island | |
| TF | 1717 | Bl-ft Booby | 12 | SE | | underway | |
| TF | 1746 | | | E | | Sunset | |
| | 1750 | Bl-foot Boob | 21 | E | | | |
| | 1805 | | | | | | |



DATE 21 September 1967
Pg. # 1

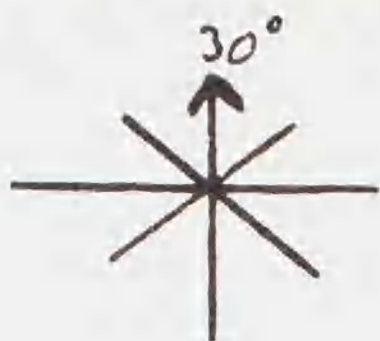
| time | species | # | dir. | hgt. | remarks | loc. |
|-----------|---------------|---|------|------|-------------------------|-------------------|
| 0559 | | | | | Sunrise | |
| 0638 | O. gracilis | 1 | | | | |
| 0639 | Storm Pet | 1 | | | | Artic - 1 |
| 0647 | Storm Pet | 2 | | | | Tethys 2 |
| 0708 | Bl-face Booby | 1 | NE | | Adult | Grac - 1 |
| 0728 | Frigate sp | 1 | | | | Storm 3 |
| 0729 | Shear-Pet | 1 | | | | Bl-Face 7 |
| 0740 | Kerm Petrel | 1 | | | Dark | Frigate - 3 |
| 0803 | O. markhami | 1 | | | | S-P - 2 |
| 0803 | D-R Petrel | 1 | | | | Kerm - 2 |
| 0814 | O. markhami | 1 | | | | markh - 8 |
| 0815-30 | | | | | Stop | DRP - 9 |
| 0835 | Red Phalarope | 1 | | | | RP - 5 |
| 0847 | O. markhami | 1 | | | | |
| 0913 | D-R Petrel | 1 | | | | |
| 0925 | Kerm Pet | 1 | | | Dark | |
| 0930 | O. markhami | 1 | | | | |
| 1003 | Red Phalarope | 1 | | | | |
| 1018 | O. markhami | 1 | | | | |
| 1025 | D-R Petrel | 1 | | | | |
| 1029 | D-R Petrel | 1 | | | | |
| 1030-1200 | | | | | Stop for Station Change | 43 |
| 1218 | Frigate | 1 | | | | Begin Tow at 1200 |
| 1242 | Bl-Face Booby | 1 | | | Adult | |
| 1252 | Red Phala | 1 | | | | |
| 1253 | | | | | | |
| 1307 | Red Phala | 2 | | | Underway | |
| 1316 | Bl-Face Booby | 1 | | | Adult | |
| 1323 | O Tethys | 1 | | | | |
| 1347 | Frigate | 1 | | | | |
| 1355 | Shear-Pet | 1 | | | Adult | |
| 1359 | Bl-face Booby | 2 | | | | |
| 1400 | | | | | Stop | |
| 1410 | Bl-face Booby | 1 | | | Adult | |
| 1411 | D-R Petrel | 1 | | | | |
| 1411 | O. markhami | 1 | | | | |
| 1413 | | | | | Underway | |
| 1428 | Artic Tern | 1 | | | | |
| 1434 | Bl-Face Booby | 1 | | | Adult | |
| 1445 | O. Tethys | 1 | | | | |
| 1458 | O. markhami | 1 | | | | |
| 1512 | D-R Petrel | 1 | | | | |
| 1534 | D-R Petrel | 1 | | | | |
| 1546 | O. markhami | 1 | | | | |
| 1600-1730 | | | | | Break | |
| 1746 | | | | | Underway | |
| 1800 | D-R Petrel | 2 | | | Sunset | |
| 1804 | | | | | | |



DATE 22 Sept 1967
Pg. # 1

| | time | species | # | dir. | hgt. | remarks | loc. |
|-----|-----------|---------------|----|------|------|--------------------------------|-----------|
| | 0630 | | | | | Begin log Sta 0621 | |
| | 0645 | O. Maubhani | 1 | | | | DRP-9 |
| | 0655 | O. leucorhoa | 1 | | | | S-P-2 |
| SF | 0705 | Artic Tern | 4 | S | | Bl line seen. | tethys-6 |
| | 0708 | Artic Tern | 6 | | | feeding | Maub-2 |
| | 0755 | Red Phala | 1 | | | searching | Roach's-1 |
| | 0800-14 | | | | | Stop | Artic-17 |
| | 0816 | O. tethys | 1 | | | | RTyp-1 |
| | 0907 | Shear-Pet | 2 | | | | RPh-22 |
| | 0921 | Phalarope | 1 | | | | Phala-2 |
| | 0934 | D-R Petrel | 1 | | | | BfB-4 |
| | 0950 | Storm Petrel | 2 | | | | |
| | 0955 | D-R Petrel | 1 | | | | |
| | 0955-11 | Bl-Face Bo | 1 | | | | |
| | 1030-1230 | | | | | Break Rv station - 1230 C-25-0 | |
| | 1243 | Phalarope | 1 | | | | Storm-3 |
| | 1250 | Storm Pet | 1 | | | | Priz-1 |
| | 1251 | D-R Petrel | 1 | | | | HP-1 |
| | 1306 | Artic Tern | 1 | SE | | Feeding | |
| | 1330 | Roach's Yg | 1 | | | | |
| | 1334 | Bl-Face B | 1 | | | Adult | |
| | 1354 | O. tethys | 1 | | | | |
| | 1400 | D-R Petrel | 1 | | | | |
| | 1403 | Bl-Face Bo | 2 | | | | |
| | | Frigate sp. | 1 | | | Feeding. | |
| | 1420 | O. Maubhani | 1 | | | | |
| | 1420 | D-R Petrel | 3 | | | | |
| | 1445 | O. tethys | 1 | | | | |
| | 1507 | Kermadec Pet. | 1 | | | Light. | |
| | 1526 | O. tethys | 1 | | | | |
| TFF | 1531 | Artic Tern | 5 | SE | | Ocean plunging into water. | |
| F | 1534 | Red Phalar | 21 | | | art 20 | |
| | 1545 | D-rump Pet | 1 | | | | |
| | 1548 | O. tethys | 1 | | | | |
| | 1551 | D-R Petrel | 1 | | | | |
| | 1630 | | | | | Cease Observations. | |

64
99
13



DATE 23 Sept 1967
Pg. # 1

| time | species | # | dir. | hgt. | remarks | loc. |
|------|---------------|---|------|------|--|------|
| 0800 | | | | | Begin | |
| 0805 | Cape Pigeon | 2 | | | Main One followed for 65 min - fed once dead squid in H ₂ O | |
| 0817 | Shear Pet | 1 | | | | |
| 0833 | D-R Petrel | 1 | | | | |
| 0836 | O. markhami | 1 | | | | |
| 0838 | Phalarope | 3 | | | | |
| 0902 | Storm Petrel | 1 | | | | |
| 0908 | D-R Petrel | 1 | | | | |
| 0914 | Oceanodroma | 1 | | | | |
| 0915 | O. markhami | 1 | | | | |
| 0923 | Whimbrel | 1 | | | | |
| 0950 | O. tethys | 1 | | | | |
| 0955 | Frigate | 1 | | | | |
| 1003 | D. markhami | 1 | | | | |
| 1020 | O. tethys | 2 | | | | |
| 1032 | D-R Petrel | 1 | | | | |
| 1032 | Storm Petrel | 1 | | | | |
| 1037 | Swallow | 1 | | | | |
| 1043 | BL face Boob | 1 | | | | |
| 1055 | O. tethys | 1 | | | adult | |
| 1059 | O. markhami | 2 | | | | |
| 1059 | D-R Petrel | 1 | | | | |
| 1100 | | | | | | |
| 1200 | | | | | End obs. | |
| 1205 | Storm Pet | 1 | | | Rescue | |
| 1210 | D-R Petrel | 1 | | | | |
| 1231 | Storm Petrel | 2 | | | | |
| 1232 | Red Phalarope | 2 | | | | |
| 1237 | D-R Petrel | 1 | | | | |
| 1251 | O. Tethys | 1 | | | | |
| 1253 | O. markhami | 3 | | | | |
| 1413 | Phalarope | 2 | | | | |
| 1414 | O. markhami | 1 | | | | |
| 1414 | Red Phalarope | 2 | | | | |
| 1423 | Red Phalarope | 2 | | | Partial Breeding Plumage | |
| 1427 | Red Phalarope | 3 | | | | |
| 1431 | BL-Face Boob | 1 | | | on H ₂ O | |
| 1434 | Red Phalarope | 1 | | | adult | |
| 1455 | D-R Petrel | 1 | | | | |
| 1510 | BL-Face Boob | 1 | | | | |
| 1525 | Red Phalarope | 4 | | | Ad on H ₂ O | |
| 1537 | O. markhami | 1 | | | | |
| 1550 | Cape Pigeon | 1 | | | | |
| 1555 | Red Phalarope | 1 | | | | |
| 1600 | D-R Petrel | 1 | | | | |
| 1611 | O. tethys | 1 | | | | |
| 1614 | D-R Petrel | 1 | | | | |
| 1626 | Red Phalarope | 4 | | | | |
| 1635 | Red Phalarope | 4 | | | | |

Cape - 3

SP - 1

ARP - 9

mark - 10

Ocean - 1

Whim - 1

Storm - 5

tethys - 6

frig - 1

Swallow - 1

BFB - 3

RA - 23

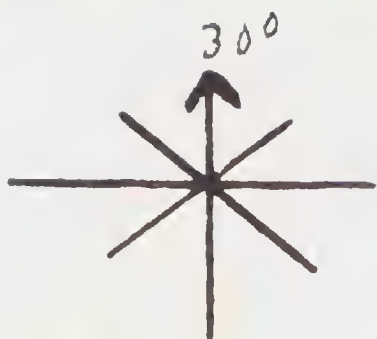
Phal - 5

69



DATE 23 ~~Aug~~ Sept 1967
Pg. # 2

| | time | species | # | dir. | hgt. | remarks | loc. |
|----|------|---------------|----|------|------|------------|--------|
| | 1635 | D-R Petrel | 1 | | | | |
| F | 1636 | Red Phalarope | 12 | | | on B20 | DRP-4 |
| | 1642 | P-R Petrel | 1 | | | | RP-12 |
| | 1645 | O. markhami | 1 | | | | mark-2 |
| | 1645 | D-R Petrel | 1 | | | | BFB-1 |
| | 1655 | Bl-Face Booby | 1 | | | | |
| | 1656 | D-R Petrel | 1 | | | | |
| 20 | 1659 | O. markhami | 1 | | | | 19 |
| | 1700 | | | | | Care Over. | |



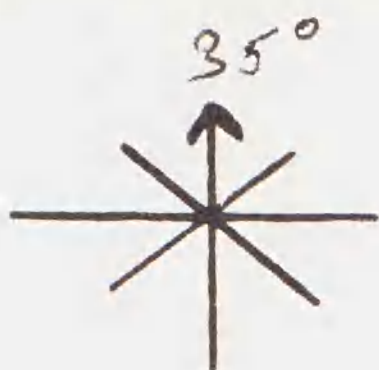
DATE 24 ^{Sept} ~~August~~ 1967
Pg. # 1

| | time | species | # | dir. | hgt. | remarks | loc. |
|------------|-----------|--------------------------|----|------|------|--|------|
| | 0815 | | | | | Begin | |
| | 0825 | O. markhami | 1 | | | | |
| | 0844 | R-Fo Booby | 2 | | | | |
| | 0845 | R-Fo Booby | 1 | | | | |
| | 0855 | BL-Face Booby | 1 | | | Adult | |
| | 0853 | R-Fo. Booby | 1 | | | Ad Inter phase (white scap + wing). | |
| | 0855 | O. Tethys | 1 | | | | |
| | 0857 | Shear Pet | 1 | | | | |
| | 0900 | O. markhami | 1 | | | | |
| O. castro? | 0900 | Shear Pet | 1 | | | Turtle (1) feeding on large (20") dead squid in H ₂ O | |
| | 0913 | O. castro? | 2 | | | | |
| | 0928 | R-Fo Booby | 1 | | | | |
| | 0941 | Shear Pet | 1 | SE | | | |
| | 0944 | Pink-F. Shear | 2 | E | | Ad Dark | |
| FF | 0957 | Red-footed B | 2 | | | Could be that tethys has a very large white patch while castro's patch is about same size as beach's and separable from that species mainly by size? If this is true, I have seen almost no castro this trip. Extraneous comment. Definitely not beach's or beach's granules | |
| | | R-F Booby | 17 | | | | |
| | | BL-F Booby | 5 | | | | |
| | 0958 | Frigate | 11 | | | | |
| | 1007 | O. Tethys | 2 | | | | |
| | 1011 | Waved Albatross | 1 | | | | |
| | 1011 | BL-Face Boob | 1 | | | | |
| | 1017 | D-R Petrel | 1 | | | adult | |
| | 1019 | Cape Pigeon | 1 | | | | |
| | 1026 | Andersen's Pet | 1 | | | | |
| | | Jacquer Parakeet | 1 | | | light | |
| | | Long Tail Jc | 1 | | | | |
| | 1036 | Storm Petrel | 1 | | | | |
| | 1046 | Red Phalarope | 1 | SE | | | |
| | 1052 | Pink-F. Shear | 1 | SE | | | |
| | 1102 | D-R Petrel | 1 | | | | |
| SF | 1111 | Shear Pet | 5 | SE | | Break | |
| | 1115-1230 | | | | | | |
| | 1241 | Shear Pet | 1 | SE | | | |
| | 1242 | D-R Petrel | 1 | SE | | | |
| | 1246 | Artic Tern | 4 | | | feeding over small Shijjae's school | |
| | 1246 | Red-F Booby | 2 | | | ad dark phase | |
| F | 1258 | Frigate | 11 | | | | |
| | | R-F Booby | 5 | | | Milling over Fish school. | |
| | | Artic Tern | 4 | | | | |
| | 1308 | D-R Petrel | 1 | | | | |
| | 1312 | Frigate | 3 | | | | |
| | 1318 | Frigate | 3 | | | 20707 | |
| | 1323 | Sooty Tern | 1 | | | adult | |
| F | 1330 | Red Phalar | 5 | | | | |
| | 1332 | O. castro? | 1 | | | on H ₂ O | |
| | 1333 | Artic Tern | 3 | | | feeding. | |
| | 1335 | D-R Petrel | 1 | | | | |
| | 1401 | D-R Petrel | 1 | | | | |
| MF | 1407 | O. markhami | 1 | | | | |
| | 1415 | Storm Petrel | 4 | SE | | | |
| | | O-Tethys | 1 | | | | |



DATE 24 Sept 1967
Pg. # 2

| time | species | # | dir. | hgt. | remarks | loc. |
|---------|---------------|----|------|------|---|-----------|
| 1432 | D-R Pet | 1 | SE | | Movie | |
| 1433 | D-R Pet | 1 | SE | | | |
| 1434 | Artic Tern | 4 | | | | |
| FF 1434 | 455 Frigate | 50 | | | at Distant some feeding over Yellow fin Tuna | |
| | Booby | 5 | | | School. | |
| 1456 | O. tethys | 1 | | | | |
| 1510 | O. markhami | 1 | | | | |
| 1515 | D-R Petrel | 1 | SE | | Movie | R-B-10 |
| 1517 | Pink f Sh | 1 | SE | | Movie | juv 1 |
| 1518 | Stamm Pet | 3 | | | | DR-4 |
| 1537 | D-R Petrel | 1 | SE | | | Artic-9 |
| 1552 | O. markhami | 1 | | | | fig-83 |
| 1603 | Phalarope | 1 | SE | | | footy-10 |
| MF 1604 | Artic Tern | 5 | | | | tethys-2 |
| 1610 | Shear-Pet | 1 | | | | mark-2 |
| 1610 | | | | | Whale spout. | AFS-5 |
| 1611 | juv | 1 | SE | | | STom-3 |
| 1614 | Pink f Shear | 1 | SE | | | Phal-1 |
| 1614 | O. tethys | 1 | SE | | | S-P-1 |
| 1614 | Pink f Shear | 1 | SE | | | BD face-9 |
| 1626 | O. Tethys | 1 | SE | | | 140 |
| 1630 | 1715 | | | | Break | |
| 1720 | Pink f Sh | 1 | SE | | | |
| 1728 | R-foot Booby | 2 | | | Dark phase ad. | |
| DF 1745 | R-foot Booby | 8 | | | 7 ad 1 SA Dark phase | |
| | Bo-face Booby | 9 | | | adult | |
| | frigate | 11 | | | on the | |
| F 1800- | frigate | 22 | | | Over Tuna Yellow fin? | |
| 15 | booby | 5 | | | Distant | |
| 1815 | | | | | Mulling little feeding Tuna breaking surface | |
| | | | | | Cease observations | |



DATE 25 Sept 1967
Pg. # 1

| time | species | # | dir. | hgt. | remarks | loc. |
|-----------|---------------|--------|------|------|--|--------------|
| 0830 | | | | | Begin | |
| 0831 | BL ST Pat | 2 | | | | AD 12-6 MF-3 |
| 0845 | Shear-Pet | 1 | | | | LD-1 |
| 0946 | Bird | 1 | | | | SE 61 |
| 0950 | Phalarope | 4 | SE | | | BL SPA-5 |
| 0957 | Phalarope | 3 | SE | | | SP-1 |
| 1012 | O. Tethys | 2 | | | | BL-1 |
| 1027 | Phalarope | 2 | SE | | | Phalar 9 |
| 1030 | O. Tethys | 1 | | | | tethys-6 |
| 1055 | BL ST Pat | 3 | | | following ship | BL-F-74-12 |
| 1055 | O. Tethys | 2 | | | | PJ-3 |
| 1105 | Bl-face Boob | 2 | | | adult | Stam-2 |
| 1112 | Pom Jaeger | 1 | | | Light Phase | Robbitt-2 |
| 1130-1300 | | | | | max Rain Till 1320 | RFB-5 |
| 11310 | Stomach | 2 | | | | BL-1 |
| 1319 | Bl-face B | 1 | | | | WTS-27 |
| 1327 | O. Tethys | 1 | | | | 190 |
| 1349 | Bl-Faced B | 1 | | | | 191 |
| 1352 | Red-Bl Trop | 2 | | | ad Fed once | |
| 1355 | Bl-Face Boob | 1 | E | | ad | |
| 1400 | 1500 | | | | ad | |
| 1502 | Bl-face Booby | 1 | | | Break while on station. | |
| 1514 | Bl-Face Booby | 1 | | | adult | |
| 1520 | | | | | adult | |
| 1531 | Red-F Booby | 1 | | | 1 Turtle | |
| 1549 | Red-F Booby | 1 | | | | |
| 1555 | Bl-Face Boob | 1 | | | | |
| SF 16000 | Bl-Face Boob | 8 | | | Adult | |
| 1605 | Shear | 1 | | | Some Feeding, adult | |
| | Wedgetails | 2 | | | adult Light phase | |
| | Sooty Tern | 3 | | | adult | |
| | Artic Tern | 6 | | | | |
| | Mag Frigate | 3 | | | Ado? | |
| WF 1617 | Wedgetail | 10 | | | 2 Dark - 8 light on H2O | |
| | Pom Jaeger | 1 | | | light | |
| 1618 | R-F Boobys | 1 | | | Adult Dark Phase. | |
| SF 1622 | R-F Booby | 1 | | | | |
| | Wedgetail | 3 | | | | |
| | Sooty Tern | 3 | | | 2 Light 1 Dark Over fish (skipjack?) No feeding. | |
| F 1625-30 | Sooty Tern | 40 | | | 2 ad 1 imm | |
| | Bl-face Booby | 18 | | | 37 Ad 3 Imm Over Fish Boobies only feeding | |
| | Wedgetail | 11 | | | adult | |
| | Red-F Booby | 1 | | | 1 Dark 10 light Skipjack - One caught | |
| 1625 | King-T Jaeger | 1 | | | 1st year | |
| | Pom Jaeger | 3 | | | 2 Copulating Turtles. | |
| FF 1635 | Bl-face Pat | 25 ± 5 | | | Distant Feeding | |
| | Sooty Terns | 15 ± 5 | | | Not feeding. Over fish. | |
| 1650 | Bl-face Booby | 3 | W | | adult | |
| 1651 | Bl-face Booby | 2 | W | | adult | |
| 1655 | Wedgetail | 1 | | | light | |
| FF 1715 | Bl-face Booby | 10 | | | adult Feeding. | |


~~12-17-11~~
12-17-11

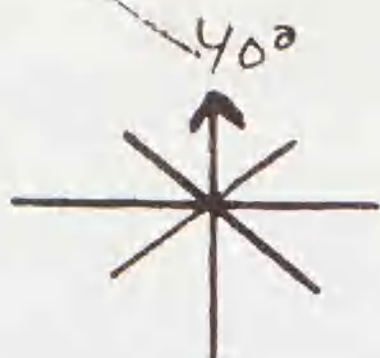
12-17-11

12-17-11



DATE 25 Sept 1967
Pg. # 2

| time | species | # | dir. | hgt. | remarks | loc. |
|-----------------|----------------------|--------------|------|------|--|------|
| 1716 | Storm Pet | 4 | | | Following ship. No other birds seen. | |
| 1716 | Storm Pet | 1 | | | | |
| MF 1717 | Bl-face booby | 5 | | | Milling over shipyard school. | |
| | Frigate | 2 | | | | |
| | Sooty Tern | 25 ± 5 | | | | |
| | Shoar-pet | 3 | | | | |
| 1725 | Bl. Storm Pet | 2 | | | Following ship. | |
| 1730 | Tern sp | 4 | | | | |
| 1755 | O. Tethys | 1 | | | | |
| 1759 | Shoalbird | 1 | SE | | | |
| 1810 | | | | | 50 ± 10 Delphids. Including young. Headed W | |
| 1815 | | | | | Deep gray | |
| | | | | | Lease Obs. | |
| | | | | |  | |
| | | | | | Brownish or light gray | |
| | | | | | 1- Small Δ fin | |
| | | | | | 2- Snout present | |
| | | | | | 3- Deep gray | |
| | | | | | 4- Small area of belly lighter gray or brownish | |
| | | | | | Jumped clear of water. | |
| | | | | | 5- Short and chunky in appearance | |
| | | | | | Tide sent | |
| | | | | | BFG-? | |



Sept 1969
DATE 26 ~~Aug~~
Pg. #

| time | species | # | dir. | hgt. | remarks | loc. |
|---------|--------------|--------|------|------|---|------|
| 0745 | | | | | Begin obs | |
| 0823 | B. Petrel | 3 | | | Following ship | |
| 0823 | O. Tethys | 3 | | | " | |
| 0835 | Bl Tern | 1 | E | | | |
| SF 0840 | O. Tethys | 12 | 0 | | | |
| 0840 | O. castro | 1 | | | | |
| 0908 | O. Tethys | 4 | | | Following ship | |
| SF 0917 | Shear Pet | 2 | | | " " | |
| SF 0945 | O. Tethys | 12 | | | | |
| | O. castro | 1 | | | | |
| 0959 | O. Tethys | 3 | | | | |
| 1013 | Bl Tern | 1 | SE | | | |
| 1045 | | | | | Break | |
| 1225 | Nighthawk | 1 | | | Turtle (1) also lay 181 <u>Shear</u> caught | |
| 1235 | | | | | | |
| 1257 | Parasitica | 2 | | | | |
| 1306 | Colum Booby | 1 | | | Ad ♀ | |
| 1325 | Shear Pet | 1 | | | | |
| 1340 | Br Booby | 1 | | | | |
| 1345 | | | | | Break | |
| 1447 | Barn Swallow | 1 | | | | |
| 1518 | Br Booby | 3 | | | | |
| 1530 | Bl Tern | 4 | | | | |
| FF 1535 | Br Booby | 10 | | | Moving over fish school. No feeding. | |
| | Can Noddy | 8 | | | | |
| | Sooty Tern | 6 | | | | |
| | Bl Tern | 25 | | | | |
| FF 1550 | Can Noddy | 8 | | | feeding | |
| I 1630 | | | | | | |
| FF 1645 | Can Noddy | 30 ± 5 | | | 8 Pilot Whales 15:2 <u>Turnips</u> | |
| | Br Booby | 6 | | | Feeding hog in water Fish jumping. | |
| | Bl Tern | 3 | | | | |
| MF 1708 | Shear Pet | 3 | | | | |
| 1710 | O. Tethys | 5 | | | | |
| 1714 | Shear Pet | 1 | | | | |
| 1726 | O. Tethys | 3 | | | One Turtle. | |
| 1730 | | | | | | |
| FF 1742 | Audubon's | 5 | | | 6 Pilot Whales - 12 <u>Turnips</u> | |
| 1745 | | | | | Paddling over water surface like stampeded. | |
| | | | | | (over) End of Trip. | |

~~Bl Tern - 34~~
Nighthawk - 1
Bl SP - 5
Tethys - 42
Castro - 2
Bl Tern - 834
Passerine - 2

Br Booby - 21
Audubon's 5
Barn Swallow - 1
S-P - 4

CNT - 46
ST - 6

91
52
143

143

169
177

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG -- E

DATE 25 August 1967
Pg. # 1

NOCTURNAL



| time | species | # | dir. | hgt. | remarks | loc. |
|------|------------|---|------|------|---|------|
| 2230 | | | | | Begin Obs - on Station Overcast in Rain | |
| 2245 | Pterodroma | 1 | | | | |
| 2315 | Wh-faces P | 1 | | | Flaw Almond Collected. | |
| 2330 | | | | | Clear 55. | |

Date 7 August 1967 Ship Undanited () Cruise No. _____

Organization _____ Recorder _____

Sunrise: Time _____ Position: Lat. _____, Long. _____

Sunset: Time _____ Position: Lat. _____, Long. _____

Miles travelled from 0000 hours to sunrise = _____

Miles travelled from sunrise to sunset = 93

Miles travelled from sunset to 2400 hours = _____

TIME OF FIX TYPE OF FIX LATITUDE LONGITUDE

1.

2.

3.

4.

5.

Hourly Positions:

Time Latitude Longitude Wind Dir. Wind Sp. Wave Dir. Wave Hgt.

| | | | | | | |
|------|----------|-----------|--|--|--|--|
| 0100 | | | | | | |
| 0200 | | | | | | |
| 0300 | | | | | | |
| 0400 | | | | | | |
| 0500 | | | | | | |
| 0600 | 8° 02' N | 79° 44' W | | | | |
| 0700 | 7° 54' N | 79° 46' W | | | | |
| 0800 | 7° 43' N | 79° 49' W | | | | |
| 0900 | 7° 31' N | 79° 53' W | | | | |
| 1000 | 7° 22' N | 80° 02' W | | | | |
| 1100 | 7° 15' N | 80° 13' W | | | | |
| 1200 | 7° 11' N | 80° 22' W | | | | |
| 1300 | 7° 10' N | 80° 32' W | | | | |
| 1400 | 7° 10' N | 80° 43' W | | | | |
| 1500 | 7° 10' N | 80° 54' W | | | | |
| 1600 | 7° 10' N | 81° 05' W | | | | |
| 1700 | 7° 11' N | 81° 14' W | | | | |
| 1800 | 7° 11' N | 81° 25' W | | | | |
| 1900 | | | | | | |
| 2000 | | | | | | |
| 2100 | | | | | | |
| 2200 | | | | | | |
| 2300 | | | | | | |
| 2400 | | | | | | |

Date 8 August 1967 Ship () Cruise No.

Organization Recorder

Sunrise: Time Position: Lat. , Long.

Sunset: Time Position: Lat. , Long.

Miles travelled from 0000 hours to sunrise =

Miles travelled from sunrise to sunset = 88

Miles travelled from sunset to 2400 hours =

TIME OF FIX TYPE OF FIX LATITUDE LONGITUDE

1.

2.

3.

4.

5.

Hourly Positions:

Time Latitude Longitude Wind Dir. Wind Sp. Wave Dir. Wave Hgt.

| | | | | | | |
|------|----------|-----------|--|--|--|--|
| 0100 | | | | | | |
| 0200 | | | | | | |
| 0300 | | | | | | |
| 0400 | | | | | | |
| 0500 | | | | | | |
| 0600 | 8° 09' N | 83° 19' W | | | | |
| 0700 | 8° 15' N | 83 29 | | | | |
| 0800 | 8° 22' N | 83° 40' W | | | | |
| 0900 | 8° 27' N | 83° 50' W | | | | |
| 1000 | 8° 33' N | 83° 58' W | | | | |
| 1100 | 8° 39' N | 84° 07' W | | | | |
| 1200 | 8° 45' N | 84° 16' W | | | | |
| 1300 | 8° 51' N | 84° 25' W | | | | |
| 1400 | 8° 58' N | 84° 34' W | | | | |
| 1500 | 9° 04' N | 84° 44' W | | | | |
| 1600 | 9° 11' N | 84° 53' W | | | | |
| 1700 | 9° 17' N | 85° 02' W | | | | |
| 1800 | 9° 23' N | 85° 11' W | | | | |
| 1900 | 9° 29 | 85° 20' W | | | | |
| 2000 | | | | | | |
| 2100 | | | | | | |
| 2200 | | | | | | |
| 2300 | | | | | | |
| 2400 | | | | | | |

Date 9 August 1967 Ship () Cruise No.

Organization Recorder

Sunrise: Time Position: Lat. , Long.

Sunset: Time Position: Lat. , Long.

Miles travelled from 0000 hours to sunrise =

Miles travelled from sunrise to sunset = 80

Miles travelled from sunset to 2400 hours =

TIME OF FIX TYPE OF FIX LATITUDE LONGITUDE

1.

2.

3.

4.

5.

Hourly Positions:

Time Latitude Longitude Wind Dir. Wind Sp. Wave Dir. Wave Hgt.

| | | | | | | |
|------|-----------|-------------|--|--|--|--|
| 0100 | | | | | | |
| 0200 | | | | | | |
| 0300 | | | | | | |
| 0400 | | | | | | |
| 0500 | | | | | | |
| 0600 | 10° 47' N | 87° | | | | |
| 0700 | 10° 54' N | 87° 23.5' W | | | | |
| 0800 | 11° 01' N | 87° 31' W | | | | |
| 0900 | 11° 08' N | 87° 38.5' W | | | | |
| 1000 | 11° 15' N | 87° 46' W | | | | |
| 1100 | 11° 22' N | 87° 53.5' W | | | | |
| 1200 | 11° 28' N | 88° 01' W | | | | |
| 1300 | 11° 35' N | 88° 10.5' W | | | | |
| 1400 | 11° 41' N | 88° 20' W | | | | |
| 1500 | 11° 48' N | 88° 29.5' W | | | | |
| 1600 | 11° 55' N | 88° 39' W | | | | |
| 1700 | 12° 02' N | 88° 48' W | | | | |
| 1800 | 12° 09' N | 88° 57.5' W | | | | |
| 1900 | 12° 16' N | 89° 07' W | | | | |
| 2000 | | | | | | |
| 2100 | | | | | | |
| 2200 | | | | | | |
| 2300 | | | | | | |
| 2400 | | | | | | |

Date 10 August 1967 Ship () Cruise No.

Organization Recorder

Sunrise: Time Position: Lat. , Long.

Sunset: Time Position: Lat. , Long.

Miles travelled from 0000 hours to sunrise =

Miles travelled from sunrise to sunset = 96

Miles travelled from sunset to 2400 hours =

TIME OF FIX TYPE OF FIX LATITUDE LONGITUDE

1.

2.

3.

4.

5.

Hourly Positions:

Time Latitude Longitude Wind Dir. Wind Sp. Wave Dir. Wave Hgt.

| | | | | | | |
|------|-----------|-----------|--|--|--|--|
| 0100 | | | | | | |
| 0200 | | | | | | |
| 0300 | | | | | | |
| 0400 | | | | | | |
| 0500 | | | | | | |
| 0600 | 13°18'N | 90°47.6'W | | | | |
| 0700 | 13°25'N | 90°58'W | | | | |
| 0800 | 13°32'N | 91°08.4' | | | | |
| 0900 | 13°39'N | 91°18.8'W | | | | |
| 1000 | 13°46'N | 91°29.2'W | | | | |
| 1100 | 13°53'N | 91°39.6'W | | | | |
| 1200 | 14°01'N | 91°50'W | | | | |
| 1300 | 14°07'N | 92°02'W | | | | |
| 1400 | 14°14'N | 92°14'W | | | | |
| 1500 | 14°20'N | 92°25'W | | | | |
| 1600 | 14°26.6'N | 92°29.7'W | | | | |
| 1700 | 14°33.2'N | 92°34.4'W | | | | |
| 1800 | 14°40'N | 92°39'W | | | | |
| 1900 | 14°46.6'N | 92°43.7'W | | | | |
| 2000 | | | | | | |
| 2100 | | | | | | |
| 2200 | | | | | | |
| 2300 | | | | | | |
| 2400 | | | | | | |

Date 12 August 1967 Ship () Cruise No.

Organization Recorder

Sunrise: Time Position: Lat. , Long.

Sunset: Time Position: Lat. , Long.

Miles travelled from 0000 hours to sunrise =

Miles travelled from sunrise to sunset = 37.1

Miles travelled from sunset to 2400 hours =

TIME OF FIX TYPE OF FIX LATITUDE LONGITUDE

1.

2.

3.

4.

5.

Hourly Positions:

Time Latitude Longitude Wind Dir. Wind Sp. Wave Dir. Wave Hgt.

| | | | | | | |
|------|-------------|-----------|--|--|--|--|
| 0100 | | | | | | |
| 0200 | | | | | | |
| 0300 | | | | | | |
| 0400 | | | | | | |
| 0500 | | | | | | |
| 0600 | | | | | | |
| 0700 | | | | | | |
| 0800 | | | | | | |
| 0900 | | | | | | |
| 1000 | | | | | | |
| 1100 | | | | | | |
| 1200 | Salina Cruz | | | | | |
| 1300 | | | | | | |
| 1400 | | | | | | |
| 1500 | 15° 58' N | 95° 20' W | | | | |
| 1600 | 15° 54' N | 95° 30' W | | | | |
| 1700 | 15° 50' N | 95° 40' W | | | | |
| 1800 | 15° 46' N | 95° 50' W | | | | |
| 1900 | 15° 42' N | 96° 0' W | | | | |
| 2000 | | | | | | |
| 2100 | | | | | | |
| 2200 | | | | | | |
| 2300 | | | | | | |
| 2400 | | | | | | |

Date 13 August 1967 Ship () Cruise No.

Organization Recorder

Sunrise: Time Position: Lat. , Long.

Sunset: Time Position: Lat. , Long.

Miles travelled from 0000 hours to sunrise =

Miles travelled from sunrise to sunset = 60

Miles travelled from sunset to 2400 hours =

TIME OF FIX TYPE OF FIX LATITUDE LONGITUDE

1.

2.

3.

4.

5.

Hourly Positions:

Time Latitude Longitude Wind Dir. Wind Sp. Wave Dir. Wave Hgt.

| | | | | | | |
|------|-----------|-----------|--|--|--|--|
| 0100 | | | | | | |
| 0200 | | | | | | |
| 0300 | | | | | | |
| 0400 | | | | | | |
| 0500 | | | | | | |
| 0600 | | | | | | |
| 0700 | 15° 55' N | 98° 12' W | | | | |
| 0800 | 15° 57' N | 98° 23' W | | | | |
| 0900 | 15° 59' N | 98° 34' W | | | | |
| 1000 | | | | | | |
| 1100 | | | | | | |
| 1200 | 16° 03' N | 98° 40' W | | | | |
| 1300 | 16 08 | 98 48 | | | | |
| 1400 | 16° 14' N | 98° 59' W | | | | |
| 1500 | 16° 19' N | 99° 09' W | | | | |
| 1600 | 16° 24' N | 99° 18' W | | | | |
| 1700 | 16° 29' N | 99° 27' W | | | | |
| 1800 | 16° 34' N | 99° 37' W | | | | |
| 1900 | 16° 39' N | 99° 46' W | | | | |
| 2000 | | | | | | |
| 2100 | | | | | | |
| 2200 | | | | | | |
| 2300 | | | | | | |
| 2400 | | | | | | |

Date 16 August 1967 Ship Undaunted (33) Cruise No. 1

Organization POBSP Recorder _____

Sunrise: Time _____ Position: Lat. _____, Long. _____

Sunset: Time 1906 Position: Lat. _____, Long. _____

Miles travelled from 0000 hours to sunrise = _____

Miles travelled from sunrise to sunset = 43.6

(~~45.2~~)

Miles travelled from sunset to 2400 hours = _____

TIME OF FIX TYPE OF FIX LATITUDE LONGITUDE

1.

2.

3.

4.

5.

49
6.1
73

Hourly Positions:

Time Latitude Longitude Wind Dir. Wind Sp. Wave Dir. Wave Hgt.

| | | | | | | |
|-----------|-----------|------------|--|--|--|--|
| 0100 | | | | | | |
| 0200 | | | | | | |
| 0300 | | | | | | |
| 0400 | | | | | | |
| 0500 | | | | | | |
| 0600 | | | | | | |
| 0700 | | | | | | |
| 0800 | | | | | | |
| 0900 | Acapulco | | | | | |
| 1030 1000 | 16° 50' N | 99° 55' W | | | | |
| 1100 | 16° 45' N | 100° 02' W | | | | |
| 1200 | 16° 39' N | 100° 05' W | | | | |
| 1300 | 16° 29' N | 100° 12' W | | | | |
| 1400 | 16° 21' N | 100° 20' W | | | | |
| 1500 | 16° 14' N | 100° 28' W | | | | |
| 1600 | 16° 14' N | 100° 28' W | | | | |
| 1700 | 16° 14' N | 100° 28' W | | | | |
| 1800 | 16° 14' N | 100° 28' W | | | | |
| 1900 | 16° 10' N | 100° 31' W | | | | |
| 2000 | | | | | | |
| 2100 | | | | | | |
| 2200 | 15° 49' N | 100° 54' W | | | | |
| 2300 | | | | | | |
| 2400 | | | | | | |

Date 17 August 1967 Ship Undan Ted (33) Cruise No. _____

Organization POBSP Recorder _____

Sunrise: Time _____ Position: Lat. _____, Long. _____

Sunset: Time 1908 Position: Lat. _____, Long. _____

Miles travelled from 0000 hours to sunrise = _____

Miles travelled from sunrise to sunset = 71

Miles travelled from sunset to 2400 hours = _____

TIME OF FIX TYPE OF FIX LATITUDE LONGITUDE

1.

2.

3. 77

4.

5.

Hourly Positions:

Time Latitude Longitude Wind Dir. Wind Sp. Wave Dir. Wave Hgt.

| | | | | | | |
|------|----------------|-----------------|--|--|--|--|
| 0100 | | | | | | |
| 0200 | | | | | | |
| 0300 | | | | | | |
| 0400 | <u>15°28'N</u> | <u>101°18'W</u> | | | | |
| 0500 | ↓ | ↓ | | | | |
| 0600 | | | | | | |
| 0700 | <u>15°28'N</u> | <u>101°18'W</u> | | | | |
| 0800 | <u>15°27'N</u> | <u>101°19'W</u> | | | | |
| 0900 | <u>15°26'N</u> | <u>101°27'W</u> | | | | |
| 1000 | <u>15°13'N</u> | <u>101°36'W</u> | | | | |
| 1100 | <u>15°13'N</u> | <u>101°36'W</u> | | | | |
| 1200 | <u>15°13'N</u> | <u>101°36'W</u> | | | | |
| 1300 | <u>15°11'N</u> | <u>101°34'W</u> | | | | |
| 1400 | <u>15°9'N</u> | <u>101°42'W</u> | | | | |
| 1500 | <u>15°N</u> | <u>101°52'W</u> | | | | |
| 1600 | <u>14°51'N</u> | <u>102°02'W</u> | | | | |
| 1700 | <u>14°51'N</u> | <u>102°02'W</u> | | | | |
| 1800 | <u>14°51'N</u> | <u>102°02'W</u> | | | | |
| 1900 | <u>14°44'N</u> | <u>102°11'W</u> | | | | |
| 2000 | <u>14°35'N</u> | <u>102°22'W</u> | | | | |
| 2100 | | | | | | |
| 2200 | <u>14°19'N</u> | <u>102°38'W</u> | | | | |
| 2300 | | | | | | |
| 2400 | | | | | | |

Date 18 August 1967 Ship Undaunted (33) Cruise No. _____

Organization _____ Recorder _____

Sunrise: Time _____ Position: Lat. _____, Long. _____

Sunset: Time _____ Position: Lat. _____, Long. _____

Miles travelled from 0000 hours to sunrise = _____

Miles travelled from sunrise to sunset = 96

Miles travelled from sunset to 2400 hours = _____

TIME OF FIX TYPE OF FIX LATITUDE LONGITUDE

1.

2.

3.

4.

5.

Hourly Positions:

Time Latitude Longitude Wind Dir. Wind Sp. Wave Dir. Wave Hgt.

| | | | | | | |
|------|---------|----------|--|--|--|--|
| 0100 | | | | | | |
| 0200 | | | | | | |
| 0300 | | | | | | |
| 0400 | 13°56'N | 103°01'W | | | | |
| 0500 | 13°56'N | 103°01'W | | | | |
| 0600 | 13°56'N | 103°01'W | | | | |
| 0700 | 13°48'N | 103°12'W | | | | |
| 0800 | 13°41'N | 103°23'W | | | | |
| 0900 | 13°34'N | 103°24'W | | | | |
| 1000 | 13°26'N | 103°26'W | | | | |
| 1100 | 13°20'N | 103°27'W | | | | |
| 1200 | 13°20'N | 103°27'W | | | | |
| 1300 | 13°14'N | 103°33'W | | | | |
| 1400 | 13°07'N | 103°41'W | | | | |
| 1500 | 13°N | 103°49'W | | | | |
| 1600 | 12°53'N | 103°56'W | | | | |
| 1700 | 12°53'N | 103°56'W | | | | |
| 1800 | 12°53'N | 103°56'W | | | | |
| 1900 | 12°44'N | 104°03'W | | | | |
| 2000 | 12°36'N | 104°09'W | | | | |
| 2100 | | | | | | |
| 2200 | | | | | | |
| 2300 | 12°16'N | 104°32'W | | | | |
| 2400 | | | | | | |

Date 19 August 1967 Ship () Cruise No.

Organization Recorder

Sunrise: Time Position: Lat. , Long.

Sunset: Time 1916 Position: Lat. 10°34'N, Long. 105°06'

Miles travelled from 0000 hours to sunrise =

Miles travelled from sunrise to sunset = 91

Miles travelled from sunset to 2400 hours =

TIME OF FIX TYPE OF FIX LATITUDE LONGITUDE

1.

2.

3.

4.

5.

Hourly Positions:

Time Latitude Longitude Wind Dir. Wind Sp. Wave Dir. Wave Hgt.

| | | | | | | |
|--------|-----------|------------|--|--|--|--|
| 0100 | | | | | | |
| 0200 | | | | | | |
| 0300 | | | | | | |
| 0400 | 12° 02' N | 104° 46' W | | | | |
| 0500 | 12° 03' N | 104° 46' W | | | | |
| 0600 | 12° 03' N | 104° 46' W | | | | |
| 0700 | 11° 59' N | 104° 54' W | | | | |
| ✓ 0800 | 11° 53' N | 105° 04' W | | | | |
| 0900 | 11° 42' N | 105° 04' W | | | | |
| 1000 | 11° 31' N | 105° 04' W | | | | |
| 1100 | 11° 26' N | 105° 04' W | | | | |
| 1200 | 11° 26' N | 105° 04' W | | | | |
| 1300 | 11° 17' N | 105° 03' W | | | | |
| 1400 | 11° 06' N | 105° 03' W | | | | |
| 1500 | 10° 56' N | 105° 05' W | | | | |
| 1600 | 10° 46' N | 105° 08' W | | | | |
| 1700 | 10° 46' N | 105° 08' W | | | | |
| 1800 | 10° 46' N | 105° 08' W | | | | |
| 1900 | 10° 37' N | 105° 06' W | | | | |
| 2000 | 10° 26' N | 105° 05' W | | | | |
| 2100 | | | | | | |
| 2200 | | | | | | |
| 2300 | 10° 04' N | 105° 03' W | | | | |
| 2400 | | | | | | |

Date 20 August 1967 Ship () Cruise No.

Organization Recorder

Sunrise: Time 0651 Position: Lat. 9°23'N, Long. 105°05'W

Sunset: Time 1916 Position: Lat. 7°54'N, Long. 105°01'W

Miles travelled from 0000 hours to sunrise =

Miles travelled from sunrise to sunset = 89

Miles travelled from sunset to 2400 hours =

| | TIME OF FIX | TYPE OF FIX | LATITUDE | LONGITUDE |
|--|-------------|-------------|----------|-----------|
|--|-------------|-------------|----------|-----------|

1.

2.

3.

4.

5.

Hourly Positions:

| Time | Latitude | Longitude | Wind Dir. | Wind Sp. | Wave Dir. | Wave Hgt. |
|------|----------|-----------|-----------|----------|-----------|-----------|
|------|----------|-----------|-----------|----------|-----------|-----------|

| | | | | | | |
|------|---------|----------|--|--|--|--|
| 0100 | | | | | | |
| 0200 | 09°49'N | 105°01'W | | | | |
| 0300 | | | | | | |
| 0400 | 09°31'N | 105°05'W | | | | |
| 0500 | | | | | | |
| 0600 | 09°31'N | 105°05'W | | | | |
| 0700 | 09°21'N | 105°06'W | | | | |
| 0800 | 9°11'N | 105°08'W | | | | |
| 0900 | 9°01'N | 105°06'W | | | | |
| 1000 | 8°50'N | 105°04'W | | | | |
| 1100 | 8°43'N | 105°03'W | | | | |
| 1200 | 8°43'N | 105°03'W | | | | |
| 1300 | 8°37'N | 105°02'W | | | | |
| 1400 | 8°26'N | 105°02'W | | | | |
| 1500 | 8°16'N | 105°01'W | | | | |
| 1600 | 8°07'N | 105°01'W | | | | |
| 1700 | 8°07'N | 105°01'W | | | | |
| 1800 | 8°06'N | 105°01'W | | | | |
| 1900 | 7°57'N | 105°01'W | | | | |
| 2000 | 7°49'N | 104°59'W | | | | |
| 2100 | | | | | | |
| 2200 | | | | | | |
| 2300 | 7°23'N | 104°57'W | | | | |
| 2400 | | | | | | |

Date 21 August 1967 Ship () Cruise No.

Organization Recorder

Sunrise: Time 0654 Position: Lat. 6°44'N Long. 104°54'W

Sunset: Time 1914 Position: Lat. 5°22'N Long. 104°56'W

Miles travelled from 0000 hours to sunrise =

Miles travelled from sunrise to sunset = 82

Miles travelled from sunset to 2400 hours =

| | TIME OF FIX | TYPE OF FIX | LATITUDE | LONGITUDE |
|--|-------------|-------------|----------|-----------|
|--|-------------|-------------|----------|-----------|

1.

2.

3.

4.

5.

Hourly Positions:

| Time | Latitude | Longitude | Wind Dir. | Wind Sp. | Wave Dir. | Wave Hgt. |
|------|----------|-----------|-----------|----------|-----------|-----------|
|------|----------|-----------|-----------|----------|-----------|-----------|

| | | | | | | |
|------|--------|----------|--|--|--|--|
| 0100 | | | | | | |
| 0200 | | | | | | |
| 0300 | | | | | | |
| 0400 | 6°50'N | 104°54'W | | | | |
| 0500 | | | | | | |
| 0600 | 6°50'N | 104°54'W | | | | |
| 0700 | 6°43'N | 104°53'W | | | | |
| 0800 | 6°36'N | 104°51'W | | | | |
| 0900 | 6°28'N | 104°49'W | | | | |
| 1000 | 6°19'N | 104°48'W | | | | |
| 1100 | 6°13'N | 104°47'W | | | | |
| 1200 | 6°13'N | 104°47'W | | | | |
| 1300 | 6°08'N | 104°49'W | | | | |
| 1400 | 5°58'N | 104°51'W | | | | |
| 1500 | 5°49'N | 104°52'W | | | | |
| 1600 | 5°39'N | 104°53'W | | | | |
| 1700 | 5°39'N | 104°53'W | | | | |
| 1800 | 5°39'N | 104°53'W | | | | |
| 1900 | 5°26'N | 104°56'W | | | | |
| 2000 | 5°13'N | 104°59'W | | | | |
| 2100 | | | | | | |
| 2200 | | | | | | |
| 2300 | 4°52'N | 105°0'W | | | | |
| 2400 | | | | | | |

$$\begin{array}{r}
 24 \\
 7 \overline{) 17} \\
 \underline{14} \\
 3
 \end{array}$$

$$\begin{array}{r}
 24 \\
 \underline{4} \\
 20
 \end{array}$$

Date 22 August 1967 Ship () Cruise No.

Organization Recorder

Sunrise: Time 0656 Position: Lat. 4°28'N, Long. 105°02'W

Sunset: Time 1910 Position: Lat. 3°20'N, Long. 105°14'W

Miles travelled from 0000 hours to sunrise =

Miles travelled from sunrise to sunset = 68

Miles travelled from sunset to 2400 hours =

TIME OF FIX TYPE OF FIX LATITUDE LONGITUDE

1.

2.

3.

4.

5.

6.6
9168
54
/60

Hourly Positions:

Time Latitude Longitude Wind Dir. Wind Sp. Wave Dir. Wave Hgt.

| | | | | | | |
|------|--------|----------|--|--|--|--|
| 0100 | | | | | | |
| 0200 | | | | | | |
| 0300 | | | | | | |
| 0400 | 4°34'N | 105°02'W | | | | |
| 0500 | | | | | | |
| 0600 | 4°34'N | 105°02'W | | | | |
| 0700 | 4°27'N | 105°02'W | | | | |
| 0800 | 4°18'N | 105°03'W | | | | |
| 0900 | 4°14'N | 105°03'W | | | | |
| 1000 | 4°05'N | 105°03'W | | | | |
| 1100 | 3°57'N | 105°04'W | | | | |
| 1200 | 3°57'N | 105°04'W | | | | |
| 1300 | 3°54'N | 105°04'W | | | | |
| 1400 | 3°49'N | 105°05'W | | | | |
| 1500 | 3°43'N | 105°06'W | | | | |
| 1600 | 3°33'N | 105°11'N | | | | |
| 1700 | 3°33'N | 105°11'N | | | | |
| 1800 | 3°33'N | 105°11'N | | | | |
| 1900 | 3°22'N | 105°14'N | | | | |
| 2000 | 3°11'N | 105°16'N | | | | |
| 2100 | | | | | | |
| 2200 | | | | | | |
| 2300 | 2°50'N | 105°16'N | | | | |
| 2400 | | | | | | |

✓
Date 23 August 1967 Ship () Cruise No.

Organization Recorder

Sunrise: Time 0657 Position: Lat. 2°19'N, Long. 105°14'W

Sunset: Time 1909 Position: Lat. 1°20'N, Long. 105°15'W

Miles travelled from 0000 hours to sunrise =

Miles travelled from sunrise to sunset = 59

Miles travelled from sunset to 2400 hours =

| TIME OF FIX | TYPE OF FIX | LATITUDE | LONGITUDE |
|-------------|-------------|----------|-----------|
|-------------|-------------|----------|-----------|

1.

2.

3.

4.

5.

Hourly Positions:

| Time | Latitude | Longitude | Wind Dir. | Wind Sp. | Wave Dir. | Wave Hgt. |
|------|----------|-----------|-----------|----------|-----------|-----------|
|------|----------|-----------|-----------|----------|-----------|-----------|

| | | | | | | |
|------|--------|----------|--|--|--|--|
| 0100 | | | | | | |
| 0200 | | | | | | |
| 0300 | | | | | | |
| 0400 | 2°28'N | 105°15'W | | | | |
| 0500 | | | | | | |
| 0600 | 2°28'N | 105°15'W | | | | |
| 0700 | 2°19'N | 105°14'W | | | | |
| 0800 | 2°10'N | 105°13'W | | | | |
| 0900 | 2°03'N | 105°13'W | | | | |
| 1000 | 1°54'N | 105°12'W | | | | |
| 1100 | 1°47'N | 105°12'W | | | | |
| 1200 | 1°47'N | 105°12'W | | | | |
| 1300 | 1°47'N | 105°12'W | | | | |
| 1400 | 1°47'N | 105°12'W | | | | |
| 1500 | 1°39'N | 105°12'W | | | | |
| 1600 | 1°29'N | 105°14'W | | | | |
| 1700 | 1°29'N | 105°14'W | | | | |
| 1800 | 1°29'N | 105°14'W | | | | |
| 1900 | 1°22'N | 105°15'W | | | | |
| 2000 | 1°09'N | 105°18'W | | | | |
| 2100 | | | | | | |
| 2200 | | | | | | |
| 2300 | 0°53'N | 105°19'W | | | | |
| 2400 | | | | | | |

Date 24 August 1967 Ship () Cruise No.

Organization Recorder

Sunrise: Time 0659 Position: Lat. 0°16'N, Long. 105°24'W

Sunset: Time 1906 Position: Lat. 0°56'S, Long. 105°15'W

Miles travelled from 0000 hours to sunrise =

Miles travelled from sunrise to sunset = 72

Miles travelled from sunset to 2400 hours =

TIME OF FIX TYPE OF FIX LATITUDE LONGITUDE

1.

2.

3.

4.

5.

1.5
96
4
20

Hourly Positions:

Time Latitude Longitude Wind Dir. Wind Sp. Wave Dir. Wave Hgt.

| | | | | | | |
|------|----------|------------|--|--|--|--|
| 0100 | | | | | | |
| 0200 | | | | | | |
| 0300 | | | | | | |
| 0400 | 0° 24' N | 105° 25' W | | | | |
| 0500 | | | | | | |
| 0600 | 0° 24' N | 105° 25' W | | | | |
| 0700 | 0° 16' N | 105° 24' W | | | | |
| 0800 | 0° 05' N | 105° 22' W | | | | |
| 0900 | 0° 01' S | 105° 21' W | | | | |
| 1000 | 0° 12' S | 105° 20' W | | | | |
| 1100 | 0° 20' S | 105° 20' W | | | | |
| 1200 | 0° 20' S | 105° 20' W | | | | |
| 1300 | 0° 21' S | 105° 20' W | | | | |
| 1400 | 0° 25' S | 105° 18' W | | | | |
| 1500 | 0° 32' S | 105° 16' W | | | | |
| 1600 | 0° 42' S | 105° 15' W | | | | |
| 1700 | 0° 42' S | 105° 15' W | | | | |
| 1800 | 0° 43' S | 105° 15' W | | | | |
| 1900 | 0° 55' S | 105° 15' W | | | | |
| 2000 | 1° 08' S | 105° 15' W | | | | |
| 2100 | | | | | | |
| 2200 | | | | | | |
| 2300 | 1° 34' S | 105° 08' W | | | | |
| 2400 | | | | | | |

Date 25 Aug 1967 Ship () Cruise No.

Organization Recorder

Sunrise: Time 0702 Position: Lat. 2°08'S, Long. 104°59'W

Sunset: Time 1903 Position: Lat. 3°27'S, Long. 104°59'W
52

Miles travelled from 0000 hours to sunrise =

Miles travelled from sunrise to sunset = 79

Miles travelled from sunset to 2400 hours =

TIME OF FIX TYPE OF FIX LATITUDE LONGITUDE

1.

2.

3.

4.

5.

Hourly Positions:

Time Latitude Longitude Wind Dir. Wind Sp. Wave Dir. Wave Hgt.

| | | | | | | |
|------|--------|----------|--|--|--|--|
| 0100 | | | | | | |
| 0200 | | | | | | |
| 0300 | | | | | | |
| 0400 | 20 S | 105°01'W | | | | |
| 0500 | 20 S | 105°01'W | | | | |
| 0600 | 20 S | 105°01'W | | | | |
| 0700 | 2°08'S | 104°59'W | | | | |
| 0800 | 2°20'S | 104°55'W | | | | |
| 0900 | 2°28'S | 104°52'W | | | | |
| 1000 | 2°39'S | 104°50'W | | | | |
| 1100 | 2°48'S | 104°48'W | | | | |
| 1200 | 2°48'S | 104°48'W | | | | |
| 1300 | 2°54'S | 104°48'W | | | | |
| 1400 | 2°59' | 104°49'W | | | | |
| 1500 | 3°07'S | 104°50'W | | | | |
| 1600 | 3°17'S | 104°55'W | | | | |
| 1700 | 3°17'S | 104°55'W | | | | |
| 1800 | 3°17'S | 104°55'W | | | | |
| 1900 | 3°27'S | 104°59'W | | | | |
| 2000 | 3°37'S | 105°02'W | | | | |
| 2100 | | | | | | |
| 2200 | | | | | | |
| 2300 | 4°03'S | 105°02'W | | | | |
| 2400 | | | | | | |

Date 26 August 1967 Ship () Cruise No.

Organization Recorder

Sunrise: Time 0709 Position: Lat. 4°03'S, Long. 106°31'W

Sunset: Time 1919 Position: Lat. 3°35'S, Long. 108°59'W

Miles travelled from 0000 hours to sunrise =

Miles travelled from sunrise to sunset = 117

Miles travelled from sunset to 2400 hours =

TIME OF FIX TYPE OF FIX LATITUDE LONGITUDE

1.

2.

3.

4.

5.

Hourly Positions:

Time Latitude Longitude Wind Dir. Wind Sp. Wave Dir. Wave Hgt.

| | | | | | | |
|------|----------|----------|--|--|--|--|
| 0100 | | | | | | |
| 0200 | | | | | | |
| 0300 | | | | | | |
| 0400 | | | | | | |
| 0500 | | | | | | |
| 0600 | | | | | | |
| 0700 | 4°03'S | 106°29'W | | | | |
| 0800 | 4°01'S | 106°40'W | | | | |
| 0900 | 3°59'S | 106°51'W | | | | |
| 1000 | 3°57'S | 107°02'W | | | | |
| 1100 | 3°55'S | 107°13' | | | | |
| 1200 | 3°53'S | 107°24'W | | | | |
| 1300 | 3°50.5'S | 107°37'W | | | | |
| 1400 | 3°48'S | 107°50'W | | | | |
| 1500 | 3°45.5'S | 108°03'W | | | | |
| 1600 | 3°43'S | 108°16'W | | | | |
| 1700 | 3°40.5'S | 108°29'W | | | | |
| 1800 | 3°38'S | 108°42'W | | | | |
| 1900 | 3°35.5'S | 108°55'W | | | | |
| 2000 | 3°33'S | 109°08'W | | | | |
| 2100 | | | | | | |
| 2200 | | | | | | |
| 2300 | | | | | | |
| 2400 | | | | | | |

Meet R/V Washington at 3°08'S 0025
109°53'W 0240

✓
Date 27 August 1967 Ship () Cruise No.

Organization Recorder

Sunrise: Time 0716 Position: Lat. 3°20'S, Long. 109°17'W

Sunset: Time 1914 Position: Lat. 3°45'S, Long. 107°14'W

Miles travelled from 0000 hours to sunrise =

Miles travelled from sunrise to sunset = 85

Miles travelled from sunset to 2400 hours =

TIME OF FIX TYPE OF FIX LATITUDE LONGITUDE

1.

2.

3.

4.

5.

Hourly Positions:

Time Latitude Longitude Wind Dir. Wind Sp. Wave Dir. Wave Hgt.

| | | | | | | |
|------|--------|------------|-------|--|--|--|
| 0100 | | | | | | |
| 0200 | | | | | | |
| 0300 | | | | | | |
| 0400 | | | | | | |
| 0500 | | | | | | |
| 0600 | 3°18'S | 109°20'W | | | | |
| 0700 | 3°20'S | 109°11'W | | | | |
| 0800 | 3°22'S | 109°01.6'W | 10575 | | | |
| 0900 | 3°24'S | 108°52.2'W | | | | |
| 1000 | 3°26'S | 108°42.8'W | | | | |
| 1100 | 3°28'S | 108°33.4'W | | | | |
| 1200 | 3°31'S | 108°24'W | | | | |
| 1300 | 3°33'S | 108°14'W | | | | |
| 1400 | 3°35'S | 108°03'W | | | | |
| 1500 | 3°37'S | 107°54'W | | | | |
| 1600 | 3°39'S | 107°45'W | | | | |
| 1700 | 3°41'S | 107°35'W | | | | |
| 1800 | 3°43'S | 107°26'W | | | | |
| 1900 | 3°45'S | 107°17'W | | | | |
| 2000 | 3°47'S | 107°06'W | | | | |
| 2100 | | | | | | |
| 2200 | | | | | | |
| 2300 | | | | | | |
| 2400 | | | | | | |

Date 28 August 1967 Ship () Cruise No.

Organization Recorder

Sunrise: Time 6704 Position: Lat. 04° 10' S, Long. 105° 31' W

Sunset: Time 1901 Position: Lat. 5° 11' S, Long. 105° 02' W

Miles travelled from 0000 hours to sunrise =

Miles travelled from sunrise to sunset = 70

Miles travelled from sunset to 2400 hours =

TIME OF FIX TYPE OF FIX LATITUDE LONGITUDE

1.

2.

0640

4° 09' S

105° 34' S

3.

4.

5.

96
64
80

Hourly Positions:

Time Latitude Longitude Wind Dir. Wind Sp. Wave Dir. Wave Hgt.

| | | | | | | |
|------|-----------|------------|--|--|--|--|
| 0100 | | | | | | |
| 0200 | | | | | | |
| 0300 | | | | | | |
| 0400 | | | | | | |
| 0500 | | | | | | |
| 0600 | 4° 07' S | 105° 40' W | | | | |
| 0700 | 4° 10' S | 105° 32' W | | | | |
| 0800 | 4° 14' S | 105° 24' W | | | | |
| 0900 | 4° 18' S | 105° 16' W | | | | |
| 1000 | 4° 22' S | 105° 08' W | | | | |
| 1100 | 4° 26' S | 105° 02' W | | | | |
| 1200 | 4° 30' S | 105° 02' W | | | | |
| 1300 | 4° 32' S | 105° 02' W | | | | |
| 1400 | 4° 43' S | 105° 01' W | | | | |
| 1500 | 4° 50' S | 105° 02' W | | | | |
| 1600 | 05° 01' S | 105° 03' W | | | | |
| 1700 | 05° 01' S | 105° 03' W | | | | |
| 1800 | 5° 01' S | 105° 03' W | | | | |
| 1900 | 5° 11' S | 105° 02' W | | | | |
| 2000 | | | | | | |
| 2100 | | | | | | |
| 2200 | | | | | | |
| 2300 | | | | | | |
| 2400 | | | | | | |

Date 29 August 1967 Ship () Cruise No.

Organization Recorder

Sunrise: Time 0600 Position: Lat. 4°34'S, Long. 104°49'W

Sunset: Time 1854 Position: Lat. 3°42'S, Long. 103°10'W

Miles travelled from 0000 hours to sunrise =

Miles travelled from sunrise to sunset = 82.8

Miles travelled from sunset to 2400 hours =

TIME OF FIX TYPE OF FIX LATITUDE LONGITUDE

1.

2.

3.

4.

5.

Hourly Positions:

Time Latitude Longitude Wind Dir. Wind Sp. Wave Dir. Wave Hgt.

| | | | | | | |
|------|--------|----------|--|--|--|--|
| 0100 | | | | | | |
| 0200 | | | | | | |
| 0300 | | | | | | |
| 0400 | 4°40'S | 104°07'W | | | | |
| 0500 | 4°37'S | 104°57'W | | | | |
| 0600 | 4°34'S | 104°49'W | | | | |
| 0700 | 4°31'S | 104°42'W | | | | |
| 0800 | 4°28'S | 104°35'W | | | | |
| 0900 | 4°25'S | 104°28'W | | | | |
| 1000 | 4°22'S | 104°20'W | | | | |
| 1100 | 4°19'S | 104°13'W | | | | |
| 1200 | 4°16'S | 104°05'W | | | | |
| 1300 | 4°11'S | 103°57'W | | | | |
| 1400 | 4°07'S | 103°49'W | | | | |
| 1500 | 4°02'S | 103°41'W | | | | |
| 1600 | 3°57'S | 103°33'W | | | | |
| 1700 | 3°52'S | 103°25'W | | | | |
| 1800 | 3°47'S | 103°17'W | | | | |
| 1900 | 3°42'S | 103°09'W | | | | |
| 2000 | | | | | | |
| 2100 | | | | | | |
| 2200 | | | | | | |
| 2300 | | | | | | |
| 2400 | | | | | | |

Date 30 August 1967 Ship () Cruise No.

Organization Recorder

Sunrise: Time Position: Lat. , Long.

Sunset: Time Position: Lat. , Long.

Miles travelled from 0000 hours to sunrise =

Miles travelled from sunrise to sunset = 92.8

Miles travelled from sunset to 2400 hours =

TIME OF FIX TYPE OF FIX LATITUDE LONGITUDE

1.

2.

3.

4.

5.

Hourly Positions:

Time Latitude Longitude Wind Dir. Wind Sp. Wave Dir. Wave Hgt.

| | | | | | | |
|------|---------|-----------|-------|--|--|--|
| 0100 | | 20 | | | | |
| 0200 | | 12 | | | | |
| 0300 | | 102 | | | | |
| 0400 | | 101 | | | | |
| 0500 | | | | | | |
| 0600 | 30 05'S | 1010 47'W | | | | |
| 0700 | 20 59'S | 1010 38'W | 10KTS | | | |
| 0800 | 20 53'S | 1010 29'W | | | | |
| 0900 | 20 47'S | 1010 20'W | | | | |
| 1000 | 20 41'S | 1010 11'W | | | | |
| 1100 | 20 35'S | 1010 02'W | | | | |
| 1200 | 20 29'S | 1000 53'W | | | | |
| 1300 | 20 23'S | 1000 44'W | | | | |
| 1400 | 20 17'S | 1000 35'W | | | | |
| 1500 | 20 11'S | 1000 26'W | | | | |
| 1600 | 20 05'S | 1000 17'W | | | | |
| 1700 | 10 59'S | 1000 08'W | | | | |
| 1800 | 10 53'S | 99 59'W | | | | |
| 1900 | 10 47'S | 99 50'W | | | | |
| 2000 | | 41 | | | | |
| 2100 | | 32 | | | | |
| 2200 | | 23 | | | | |
| 2300 | | 13 | | | | |
| 2400 | | 03 | | | | |

Date 31 August 1987 Ship () Cruise No.

Organization Recorder

Sunrise: Time 0700 Position: Lat. 0°51'S, Long. 98°02'W

Sunset: Time 1836 Position: Lat. 0°11'N, Long. 98°03'W

Miles travelled from 0000 hours to sunrise =

Miles travelled from sunrise to sunset = 62

Miles travelled from sunset to 2400 hours =

TIME OF FIX TYPE OF FIX LATITUDE LONGITUDE

1.

2.

3.

4.

5.

Hourly Positions:

Time Latitude Longitude Wind Dir. Wind Sp. Wave Dir. Wave Hgt.

| | | | | | | |
|------|----------------|----------------|--|--|--|--|
| 0100 | | | | | | |
| 0200 | <u>10°04'S</u> | <u>98°03'W</u> | | | | |
| 0300 | | | | | | |
| 0400 | | | | | | |
| 0500 | | | | | | |
| 0600 | | | | | | |
| 0700 | <u>0°51'S</u> | <u>98°02'W</u> | | | | |
| 0800 | <u>0°40'S</u> | <u>98°04'W</u> | | | | |
| 0900 | <u>0°32'S</u> | <u>98°03'W</u> | | | | |
| 1000 | <u>0°19'S</u> | <u>98°03'W</u> | | | | |
| 1100 | <u>0°11'S</u> | <u>98°03'W</u> | | | | |
| 1200 | <u>0°11'S</u> | <u>98°03'W</u> | | | | |
| 1300 | | | | | | |
| 1400 | <u>0°08'S</u> | <u>98°03'W</u> | | | | |
| 1500 | <u>0°00'</u> | <u>98°03'W</u> | | | | |
| 1600 | <u>0°10'N</u> | <u>98°03'W</u> | | | | |
| 1700 | <u>0°10'N</u> | <u>98°03'W</u> | | | | |
| 1800 | <u>0°10'N</u> | <u>98°03'W</u> | | | | |
| 1900 | <u>0°15'N</u> | <u>98°03'W</u> | | | | |
| 2000 | | | | | | |
| 2100 | | | | | | |
| 2200 | <u>0°47'N</u> | <u>98°04'W</u> | | | | |
| 2300 | | | | | | |
| 2400 | | | | | | |

Date 1 Sept 1967 Ship () Cruise No.

Organization Recorder

Sunrise: Time 0630 Position: Lat. 1° 17' N, Long. 98° 04' W

Sunset: Time Position: Lat. 2° 29' N, Long. 98° 07' W

Miles travelled from 0000 hours to sunrise =

Miles travelled from sunrise to sunset = 72

Miles travelled from sunset to 2400 hours =

| | TIME OF FIX | TYPE OF FIX | LATITUDE | LONGITUDE |
|--|-------------|-------------|----------|-----------|
|--|-------------|-------------|----------|-----------|

1.

2.

3.

4.

5.

Hourly Positions:

| Time | Latitude | Longitude | Wind Dir. | Wind Sp. | Wave Dir. | Wave Hgt. |
|------|----------|-----------|-----------|----------|-----------|-----------|
|------|----------|-----------|-----------|----------|-----------|-----------|

| | | | | | | |
|------|----------|----------|--|--|--|--|
| 0100 | | | | | | |
| 0200 | | | | | | |
| 0300 | | | | | | |
| 0400 | 10 12' N | 98 04' W | | | | |
| 0500 | 10 12' N | 98 04' W | | | | |
| 0600 | 10 12' N | 98 04' W | | | | |
| 0700 | 10 22' N | 98 04' W | | | | |
| 0800 | 10 31' N | 98 04' W | | | | |
| 0900 | 10 39' N | 98 04' W | | | | |
| 1000 | 10 49' N | 98 04' W | | | | |
| 1100 | 10 55' N | 98 05' W | | | | |
| 1200 | 10 55' N | 98 05' W | | | | |
| 1300 | | | | | | |
| 1400 | 20 04' N | 98 06' W | | | | |
| 1500 | 20 11' N | 98 06' W | | | | |
| 1600 | 20 21' N | 98 07' W | | | | |
| 1700 | 20 21' N | 98 07' W | | | | |
| 1800 | 20 23' N | 98 07' W | | | | |
| 1900 | 20 33' N | 98 08' W | | | | |
| 2000 | | | | | | |
| 2100 | | | | | | |
| 2200 | | | | | | |
| 2300 | 30 08' N | 98 12' N | | | | |
| 2400 | | | | | | |

Date 2 Sept 1967 Ship () Cruise No.

Organization Recorder

Sunrise: Time 0627 Position: Lat. 3°40'N, Long. 98°12'W

Sunset: Time 1838 Position: Lat. 4°54'N, Long. 98°03'W

Miles travelled from 0000 hours to sunrise =

Miles travelled from sunrise to sunset = 74

Miles travelled from sunset to 2400 hours =

TIME OF FIX TYPE OF FIX LATITUDE LONGITUDE

1.

2.

3.

4.

5.

Hourly Positions:

Time Latitude Longitude Wind Dir. Wind Sp. Wave Dir. Wave Hgt.

| | | | | | | |
|------|--------|---------|--|--|--|--|
| 0100 | | | | | | |
| 0200 | | | | | | |
| 0300 | | | | | | |
| 0400 | 3°33'N | 98°15'W | | | | |
| 0500 | 3°33'N | 98°15'W | | | | |
| 0600 | 3°35'N | 98°15'W | | | | |
| 0700 | 3°45'N | 98°11'W | | | | |
| 0800 | 3°54'N | 98°08'W | | | | |
| 0900 | 4°02'N | 98°05'W | | | | |
| 1000 | 4°12'N | 98°01'W | | | | |
| 1100 | 4°20'N | 98°W | | | | |
| 1200 | 4°20'N | 98°W | | | | |
| 1300 | 4°22'N | 98°W | | | | |
| 1400 | 4°28'N | 98°01'W | | | | |
| 1500 | 4°36'N | 98°02'W | | | | |
| 1600 | 4°48'N | 98°04'W | | | | |
| 1700 | 4°48'N | 98°04'W | | | | |
| 1800 | 4°48'N | 98°04'W | | | | |
| 1900 | 4°58'N | 98°03'W | | | | |
| 2000 | | | | | | |
| 2100 | | | | | | |
| 2200 | | | | | | |
| 2300 | 5°36'N | 97°54'W | | | | |
| 2400 | | | | | | |

Date 3 Sept 1967 Ship () Cruise No.

Organization Recorder

Sunrise: Time 0625 Position: Lat. 6° 11' N, Long. 97° 45' W

Sunset: Time 1839 Position: Lat. 7° 43' N, Long. 98° W

Miles travelled from 0000 hours to sunrise = 6° 11'

Miles travelled from sunrise to sunset = 93

Miles travelled from sunset to 2400 hours =

TIME OF FIX TYPE OF FIX LATITUDE LONGITUDE

1.

2.

3.

4.

5.

Hourly Positions:

Time Latitude Longitude Wind Dir. Wind Sp. Wave Dir. Wave Hgt.

| | | | | | | |
|------|----------|-----------|--|--|--|--|
| 0100 | | | | | | |
| 0200 | | | | | | |
| 0300 | | | | | | |
| 0400 | 6° 09' N | 97° 45' W | | | | |
| 0500 | 6° 09' N | 97° 45' W | | | | |
| 0600 | 6° 09' N | 97° 45' W | | | | |
| 0700 | 6° 14' N | 97° 45' W | | | | |
| 0800 | 6° 25' N | 97° 46' W | | | | |
| 0900 | 6° 36' N | 97° 46' W | | | | |
| 1000 | 6° 47' N | 97° 47' W | | | | |
| 1100 | 6° 56' N | 97° 48' W | | | | |
| 1200 | 6° 56' N | 97° 48' W | | | | |
| 1300 | 7° 01' N | 97° 48' W | | | | |
| 1400 | 7° 12' N | 97° 53' W | | | | |
| 1500 | 7° 24' N | 97° 56' W | | | | |
| 1600 | 7° 35' N | 98° W | | | | |
| 1700 | 7° 35' N | 98° W | | | | |
| 1800 | 7° 35' N | 98° W | | | | |
| 1900 | 7° 46' N | 98° W | | | | |
| 2000 | 7° 57' N | 97° 59' W | | | | |
| 2100 | | | | | | |
| 2200 | | | | | | |
| 2300 | 8° 25' N | 97° 56' W | | | | |
| 2400 | | | | | | |

Date 4 Sept 1967 Ship () Cruise No.

Organization Recorder

Sunrise: Time 0623 Position: Lat. 9°04'N, Long. 97°51'W

Sunset: Time 1839 Position: Lat. 10°33'N, Long. 98°01'W

Miles travelled from 0000 hours to sunrise =

Miles travelled from sunrise to sunset = 89

Miles travelled from sunset to 2400 hours =

| TIME OF FIX | TYPE OF FIX | LATITUDE | LONGITUDE |
|-------------|-------------|----------|-----------|
|-------------|-------------|----------|-----------|

1.

2.

3.

4.

5.

Hourly Positions:

| Time | Latitude | Longitude | Wind Dir. | Wind Sp. | Wave Dir. | Wave Hgt. |
|------|----------|-----------|-----------|----------|-----------|-----------|
|------|----------|-----------|-----------|----------|-----------|-----------|

| | | | | | | |
|------|---------|---------|--|--|--|--|
| 0100 | | | | | | |
| 0200 | | | | | | |
| 0300 | | | | | | |
| 0400 | 8°58'N | 97°51'W | | | | |
| 0500 | 8°58'N | 97°51'W | | | | |
| 0600 | 9°00'N | 97°51'W | | | | |
| 0700 | 9°12'N | 97°50'W | | | | |
| 0800 | 9°24'N | 97°49'W | | | | |
| 0900 | 9°32'N | 97°49'W | | | | |
| 1000 | 9°38'N | 97°48'W | | | | |
| 1100 | 9°45'N | 97°48'W | | | | |
| 1200 | 9°45'N | 97°48'W | | | | |
| 1300 | 9°51'N | 97°51'W | | | | |
| 1400 | 10°01'N | 97°55'W | | | | |
| 1500 | 10°13'N | 97°58'W | | | | |
| 1600 | 10°25'N | 98°01'W | | | | |
| 1700 | 10°25'N | 98°01'W | | | | |
| 1800 | 10°25'N | 98°01'W | | | | |
| 1900 | 10°36'N | 98°01'W | | | | |
| 2000 | | | | | | |
| 2100 | | | | | | |
| 2200 | | | | | | |
| 2300 | 11°03'N | 98°05'W | | | | |
| 2400 | | | | | | |

Date 5 Sept 1967 Ship () Cruise No.

Organization Recorder

Sunrise: Time 0622 Position: Lat. 11°33'N, Long. 98°05'W

Sunset: Time 1843 Position: Lat. 13°16'N, Long. 98°03'W

Miles travelled from 0000 hours to sunrise =

Miles travelled from sunrise to sunset = 103

Miles travelled from sunset to 2400 hours =

| | TIME OF FIX | TYPE OF FIX | LATITUDE | LONGITUDE |
|--|-------------|-------------|----------|-----------|
|--|-------------|-------------|----------|-----------|

1.

2.

3.

4.

5.

Hourly Positions:

| Time | Latitude | Longitude | Wind Dir. | Wind Sp. | Wave Dir. | Wave Hgt. |
|------|----------|-----------|-----------|----------|-----------|-----------|
|------|----------|-----------|-----------|----------|-----------|-----------|

| | | | | | | |
|------|---------|---------|--|--|--|--|
| 0100 | | | | | | |
| 0200 | | | | | | |
| 0300 | | | | | | |
| 0400 | 11°28'N | 98°07'W | | | | |
| 0500 | 11°28'N | 98°07'W | | | | |
| 0600 | 11°29'N | 98°07'W | | | | |
| 0700 | 11°41'N | 98°05'W | | | | |
| 0800 | 11°52'N | 98°03'W | | | | |
| 0900 | 12°01'N | 98°02'W | | | | |
| 1000 | 12°11'N | 98°01'W | | | | |
| 1100 | 12°18'N | 97°59'W | | | | |
| 1200 | 12°18'N | 97°59'W | | | | |
| 1300 | 12°19'N | 98°W | | | | |
| 1400 | 12°30'N | 98°02'W | | | | |
| 1500 | 12°42'N | 98°02'W | | | | |
| 1600 | 12°53'N | 98°03'W | | | | |
| 1700 | 12°53'N | 98°03'W | | | | |
| 1800 | 12°55'N | 98°03'W | | | | |
| 1900 | 13°08'N | 98°03'W | | | | |
| 2000 | 13°20'N | 98°04'W | | | | |
| 2100 | | | | | | |
| 2200 | | | | | | |
| 2300 | 13°41'N | 98°03'W | | | | |
| 2400 | | | | | | |

Date 6 Sept 1967 Ship () Cruise No.

Organization Recorder

Sunrise: Time 0622 Position: Lat. 14°14'N, Long. 98°01'W

Sunset: Time 1842 Position: Lat. 15°38'N, Long. 97°53'W

Miles travelled from 0000 hours to sunrise =

Miles travelled from sunrise to sunset = 91

Miles travelled from sunset to 2400 hours =

TIME OF FIX TYPE OF FIX LATITUDE LONGITUDE

1.

2.

3.

4.

5.

Hourly Positions:

Time Latitude Longitude Wind Dir. Wind Sp. Wave Dir. Wave Hgt.

| | | | | | | |
|------|---------|---------|--|--|--|--|
| 0100 | | | | | | |
| 0200 | | | | | | |
| 0300 | | | | | | |
| 0400 | 14°09'N | 98°01'W | | | | |
| 0500 | 14°09'N | 98°01'W | | | | |
| 0600 | 14°10'N | 98°01'W | | | | |
| 0700 | 14°22'N | 98°01'W | | | | |
| 0800 | 14°34'N | 98°W | | | | |
| 0900 | 14°42'N | 98°W | | | | |
| 1000 | 14°50'N | 98°W | | | | |
| 1100 | 14°56'N | 97°59'N | | | | |
| 1200 | 14°56'N | 97°59'N | | | | |
| 1300 | 15°03'N | 97°59'N | | | | |
| 1400 | 15°15'N | 97°59'N | | | | |
| 1500 | 15°27'N | 98°W | | | | |
| 1600 | 15°38'N | 98°01'W | | | | |
| 1700 | 15°38'N | 98°01'W | | | | |
| 1800 | 15°38'N | 98°01'W | | | | |
| 1900 | 15°38'N | 97°49'N | | | | |
| 2000 | | | | | | |
| 2100 | | | | | | |
| 2200 | | | | | | |
| 2300 | | | | | | |
| 2400 | | | | | | |

✓
Date 7 September 1967 Ship () Cruise No.

Organization Recorder

Sunrise: Time Position: Lat. , Long.

Sunset: Time Position: Lat. , Long.

Miles travelled from 0000 hours to sunrise =

Miles travelled from sunrise to sunset =

Miles travelled from sunset to 2400 hours =

 TIME OF FIX TYPE OF FIX LATITUDE LONGITUDE

1.

2.

3.

4.

5.

Hourly Positions:

Time Latitude Longitude Wind Dir. Wind Sp. Wave Dir. Wave Hgt.

| | | | | | | |
|------|-----------|-----------|--|--|--|--|
| 0100 | | | | | | |
| 0200 | | | | | | |
| 0300 | | | | | | |
| 0400 | | | | | | |
| 0500 | | | | | | |
| 0600 | 15° N | 96° 07' W | | | | |
| 0700 | 16° 02' N | 95° 56' W | | | | |
| 0800 | 16° 04' N | 95° 45' W | | | | |
| 0900 | 16° 06' N | 95° 34' W | | | | |
| 1000 | 16° 08' N | 95° 23' W | | | | |
| 1100 | 16° 10' N | 95° 12' W | | | | |
| 1200 | ↓ | 95° 12' W | | | | |
| 1300 | | | | | | |
| 1400 | | | | | | |
| 1500 | | | | | | |
| 1600 | | | | | | |
| 1700 | | | | | | |
| 1800 | | | | | | |
| 1900 | | | | | | |
| 2000 | | | | | | |
| 2100 | | | | | | |
| 2200 | | | | | | |
| 2300 | | | | | | |
| 2400 | | | | | | |

Date 14 Sept 1967 Ship () Cruise No.

Organization Recorder

Sunrise: Time Position: Lat. , Long.

Sunset: Time 1816 Position: Lat. , Long.

Miles travelled from 0000 hours to sunrise =

Miles travelled from sunrise to sunset = 50

Miles travelled from sunset to 2400 hours =

TIME OF FIX TYPE OF FIX LATITUDE LONGITUDE

1.

2.

3.

4.

5.

Hourly Positions:

Time Latitude Longitude Wind Dir. Wind Sp. Wave Dir. Wave Hgt.

| | | | | | | |
|------|-------------|-------------|--|--|--|--|
| 0100 | | | | | | |
| 0200 | | | | | | |
| 0300 | | | | | | |
| 0400 | | | | | | |
| 0500 | | | | | | |
| 0600 | Salina Cruz | | | | | |
| 0700 | | | | | | |
| 0800 | 16° 10' N | 95° 12' W | | | | |
| 0900 | 16° 02.5' N | 95° 04' W | | | | |
| 1000 | 15° 55' N | 94° 55' W | | | | |
| 1100 | 15° 47.5' N | 94° 46' W | | | | |
| 1200 | 15° 40' N | 94° 37' W | | | | |
| 1300 | 15° 33.6' N | 94° 28.6' W | | | | |
| 1400 | 15° 27' N | 94° 20' W | | | | |
| 1500 | 15° 20.4' N | 94° 11.4' W | | | | |
| 1600 | 15° 13.8' N | 94° 02.8' W | | | | |
| 1700 | 15° 7.2' N | 93° 54.2' W | | | | |
| 1800 | 15° 00.6' N | 93° 45.6' W | | | | |
| 1900 | 14° 54' N | 93° 37' W | | | | |
| 2000 | | | | | | |
| 2100 | | | | | | |
| 2200 | | | | | | |
| 2300 | | | | | | |
| 2400 | | | | | | |

81

49

130

130

21 30 1900

958b-SI-MNH
Rev. 9/28/66

0730 1336

9155

170
5
37

19162
152100

38.5
59.5

14700
2530

Date 15 Sept 1967 Ship () Cruise No.

Organization Recorder

Sunrise: Time Position: Lat. , Long.

Sunset: Time Position: Lat. 12°32'N, Long. 92°03'W

Miles travelled from 0000 hours to sunrise =

Miles travelled from sunrise to sunset = 74

Miles travelled from sunset to 2400 hours =

TIME OF FIX TYPE OF FIX LATITUDE LONGITUDE

1.

2.

3.

4.

5.

Hourly Positions:

Time Latitude Longitude Wind Dir. Wind Sp. Wave Dir. Wave Hgt.

| | | | | | | |
|------|---------|---------|--|--|--|--|
| 0100 | | | | | | |
| 0200 | | | | | | |
| 0300 | | | | | | |
| 0400 | | | | | | |
| 0500 | | | | | | |
| 0600 | 13°45'N | 92°07'W | | | | |
| 0700 | 13°38'N | 91°58'W | | | | |
| 0800 | 13°36'N | 91°55'W | | | | |
| 0900 | 13°31'N | 91°55'W | | | | |
| 1000 | 13°19'N | 91°53'W | | | | |
| 1100 | 13°13'N | 91°51'W | | | | |
| 1200 | 13°13'N | 91°51'W | | | | |
| 1300 | 13°04'N | 91°54'W | | | | |
| 1400 | 12°54'N | 91°57'W | | | | |
| 1500 | 12°45'N | 92°00'W | | | | |
| 1600 | 12°40'N | 92°03'W | | | | |
| 1700 | 12°40'N | 92°03'W | | | | |
| 1800 | 12°34'N | 92°03'W | | | | |
| 1900 | 12°24'N | 92°04'W | | | | |
| 2000 | | | | | | |
| 2100 | | | | | | |
| 2200 | | | | | | |
| 2300 | | | | | | |
| 2400 | | | | | | |

Date 16 Sept 1967 Ship () Cruise No.

Organization Recorder

Sunrise: Time 0558 Position: Lat. 11° 08' N, Long. 91° 58' W

Sunset: Time 1808 Position: Lat. 9° 39' N, Long. 91° 58' W

Miles travelled from 0000 hours to sunrise =

Miles travelled from sunrise to sunset = 89

Miles travelled from sunset to 2400 hours =

| | TIME OF FIX | TYPE OF FIX | LATITUDE | LONGITUDE |
|--|-------------|-------------|----------|-----------|
|--|-------------|-------------|----------|-----------|

1.

2.

3.

4.

5.

Hourly Positions:

| Time | Latitude | Longitude | Wind Dir. | Wind Sp. | Wave Dir. | Wave Hgt. |
|------|----------|-----------|-----------|----------|-----------|-----------|
|------|----------|-----------|-----------|----------|-----------|-----------|

| | | | | | | |
|------|-----------|-----------|--|--|--|--|
| 0100 | | | | | | |
| 0200 | | | | | | |
| 0300 | | | | | | |
| 0400 | 11° 08' N | 91° 58' W | | | | |
| 0500 | ↓ | ↓ | | | | |
| 0600 | 11° 08' N | 91° 58' W | | | | |
| 0700 | 10° 58' N | 91° 57' W | | | | |
| 0800 | 10° 48' N | 91° 56' W | | | | |
| 0900 | 10° 37' N | 91° 55' W | | | | |
| 1000 | 10° 26' N | 91° 54' W | | | | |
| 1100 | 10° 19' N | 91° 54' N | | | | |
| 1200 | 10° 19' N | 91° 54' N | | | | |
| 1300 | 10° 11' N | 91° 55' N | | | | |
| 1400 | 10° 02' N | 91° 56' N | | | | |
| 1500 | 09° 52' N | 91° 57' N | | | | |
| 1600 | 09° 42' N | 91° 58' N | | | | |
| 1700 | 9° 42' N | 91° 58' N | | | | |
| 1800 | 9° 41' N | 91° 58' N | | | | |
| 1900 | 9° 31' N | 91° 58' N | | | | |
| 2000 | | | | | | |
| 2100 | | | | | | |
| 2200 | | | | | | |
| 2300 | | | | | | |
| 2400 | | | | | | |

Date 17 Sept 1967 Ship () Cruise No.

Organization Recorder

Sunrise: Time 0558 Position: Lat. 8°28'N, Long. 92°05'W

Sunset: Time 1807 Position: Lat. 6°57'N, Long. 92°08'W

Miles travelled from 0000 hours to sunrise =

Miles travelled from sunrise to sunset = 91

Miles travelled from sunset to 2400 hours =

TIME OF FIX TYPE OF FIX LATITUDE LONGITUDE

1.

2.

3.

4.

5.

Hourly Positions:

Time Latitude Longitude Wind Dir. Wind Sp. Wave Dir. Wave Hgt.

| | | | | | | |
|------|---------|---------|--|--|--|--|
| 0100 | | | | | | |
| 0200 | | | | | | |
| 0300 | | | | | | |
| 0400 | 8°28'N | 92°05'W | | | | |
| 0500 | 1 | 1 | | | | |
| 0600 | 8°28'N | 92°05'W | | | | |
| 0700 | 8°18'N | 92°05'W | | | | |
| 0800 | 8°08'N | 92°06'W | | | | |
| 0900 | 7°58'N | 92°06'W | | | | |
| 1000 | 7°48'N | 92°07'W | | | | |
| 1100 | 7°44'N | 92°08'W | | | | |
| 1200 | 7°44'N | 92°08'W | | | | |
| 1300 | 7°33'N | 92°08'W | | | | |
| 1400 | 7°23'N | 92°08'W | | | | |
| 1500 | 7°12'N | 92°08'W | | | | |
| 1600 | 07°01'N | 92°08'W | | | | |
| 1700 | 7°01'N | 92°08'W | | | | |
| 1800 | 6°59'N | 92°08'W | | | | |
| 1900 | 6°49'N | 92°08'W | | | | |
| 2000 | | | | | | |
| 2100 | | | | | | |
| 2200 | | | | | | |
| 2300 | | | | | | |
| 2400 | | | | | | |

Date 18 Sept 1967 Ship () Cruise No.

Organization Recorder

Sunrise: Time 0558 Position: Lat. 5°40'N, Long. 91°58'W

Sunset: Time 1806 Position: Lat. 4°15'N, Long. 91°56'W

Miles travelled from 0000 hours to sunrise =

Miles travelled from sunrise to sunset =

80 change 75 45

Miles travelled from sunset to 2400 hours =

TIME OF FIX TYPE OF FIX LATITUDE LONGITUDE

1.

2.

3.

4.

5.

Hourly Positions:

Time Latitude Longitude Wind Dir. Wind Sp. Wave Dir. Wave Hgt.

| | | | | | | |
|------|---------|---------|--|--|--|--|
| 0100 | | | | | | |
| 0200 | | | | | | |
| 0300 | | | | | | |
| 0400 | 05°40'N | 91°58'W | | | | |
| 0500 | ↓ | ↓ | | | | |
| 0600 | ↓ | ↓ | | | | |
| 0700 | 5°29'N | 91°57'W | | | | |
| 0800 | 5°18'N | 91°55'W | | | | |
| 0900 | 5°08'N | 91°55'W | | | | |
| 1000 | 4°58'N | 91°53'W | | | | |
| 1100 | 4°54'N | 91°52'W | | | | |
| 1200 | 4°54'N | 91°52'W | | | | |
| 1300 | 4°47'N | 91°52'W | | | | |
| 1400 | 4°37'N | 91°54'W | | | | |
| 1500 | 4°30'N | 91°55'W | | | | |
| 1600 | 4°19'N | 91°56'W | | | | |
| 1700 | 4°19'N | 91°56'W | | | | |
| 1800 | 4°16'N | 91°56'W | | | | |
| 1900 | 4°06'N | 91°56'W | | | | |
| 2000 | | | | | | |
| 2100 | | | | | | |
| 2200 | | | | | | |
| 2300 | | | | | | |
| 2400 | | | | | | |

SI-MNH-955b
Rev. 4-9-64

DATE 19 Sept 1967

SR 0559 2059'N 92°W

SS 1039' 92°04'W

Miles - 80

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA CLIMATOLOGICAL DATA

| TIME | LAT | LONG | PRES | WEA | VIS | SLP | DRY B | DEW PT | HUM % | TL SKY | OPA SKY | WAVES | SEA TEMP | WIND S | WIND D | SHIP COURSE/SPD. |
|------|----------|----------|------|-----|-----|-----|-------|--------|-------|--------|---------|-------|----------|--------|--------|------------------|
| 0100 | | | | | | | | | | | | | | | | |
| 0200 | | | | | | | | | | | | | | | | |
| 0300 | | | | | | | | | | | | | | | | |
| 0400 | 20 59' N | 92 00' W | | | | | | | | | | | | | | |
| 0500 | | | | | | | | | | | | | | | | |
| 0600 | 20 59' N | 92 0 W | | | | | | | | | | | | | | |
| 0700 | 20 48' N | 92 02' W | | | | | | | | | | | | | | |
| 0800 | 20 37' N | 92 04' W | | | | | | | | | | | | | | |
| 0900 | 20 29' N | 92 05' W | | | | | | | | | | | | | | |
| 1000 | 20 18' N | 92 06' W | | | | | | | | | | | | | | |
| 1100 | 20 13' N | 92 07' W | | | | | | | | | | | | | | |
| 1200 | 20 13' N | 92 07' W | | | | | | | | | | | | | | |
| 1300 | 20 07' N | 92 08' W | | | | | | | | | | | | | | |
| 1400 | 10 57' N | 92 09' W | | | | | | | | | | | | | | |
| 1500 | 10 50' N | 92 07' W | | | | | | | | | | | | | | |
| 1600 | 10 39' N | 92 04' W | | | | | | | | | | | | | | |
| 1700 | | | | | | | | | | | | | | | | |
| 1800 | | | | | | | | | | | | | | | | |
| 1900 | | | | | | | | | | | | | | | | |
| 2000 | | | | | | | | | | | | | | | | |
| 2100 | | | | | | | | | | | | | | | | |
| 2200 | | | | | | | | | | | | | | | | |
| 2300 | | | | | | | | | | | | | | | | |
| 2400 | | | | | | | | | | | | | | | | |

REMARKS:

ALL TIMES LOCAL (WHISKEY); WIND DIR. IN WHOLE DEGREES; WIND SPEED IN KNOTS; TEMPERATURES IN FAHRENHEIT; VISIBILITY IN NAUTICAL MILES;
WAVES IN WHOLE DEGREES; WAVE PERIOD IN SECONDS; WAVE HEIGHT IN WHOLE FEET; SEA LEVEL PRESSURE IN MILLIBARS

4-31
4-15
8-46

13
21
34

~~27~~ 3
3 8
6
20
18

SI-MNH-955b
Rev. 4-9-64

SR 0559 0°23'N 92°04'W

SS 1805 0°50'S 92°04'W

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA CLIMATOLOGICAL DATA

DATE 20 Sept 1967

Miller-73

10-1
2
50 11.20

| TIME | LAT | LONG | PRES | WEA | VIS | SLP | DRY B | DEW PT | HUM % | TL SKY | OPA SKY | WAVES | SEA TEMP | WIND S | WIND D | SHIP COURSE/SPD. |
|------|--------|---------|------|-----|-----|-----|-------|--------|-------|--------|---------|-------|----------|--------|--------|------------------|
| 0100 | | | | | | | | | | | | | | | | |
| 0200 | | | | | | | | | | | | | | | | |
| 0300 | | | | | | | | | | | | | | | | |
| 0400 | 0°23'N | 92°04'W | | | | | | | | | | | | | | |
| 0500 | 0°23'N | 92°04'W | | | | | | | | | | | | | | |
| 0600 | 0°23'N | 92°04'W | | | | | | | | | | | | | | |
| 0700 | 0°16'N | 92°04'W | | | | | | | | | | | | | | |
| 0800 | 0°09'N | 92°04'W | | | | | | | | | | | | | | |
| 0900 | 0°01'N | 92°04'W | | | | | | | | | | | | | | |
| 1000 | 0°09'S | 92°03'W | | | | | | | | | | | | | | |
| 1100 | 0°14'S | 92°03'W | | | | | | | | | | | | | | |
| 1200 | 0°14'S | 92°03'W | | | | | | | | | | | | | | |
| 1300 | 0°20'S | 92°04'W | | | | | | | | | | | | | | |
| 1400 | 0°30'S | 92°05'W | | | | | | | | | | | | | | |
| 1500 | 0°37'S | 92°04'W | | | | | | | | | | | | | | |
| 1600 | 0°47'S | 92°03'W | | | | | | | | | | | | | | |
| 1700 | 0°47'S | 92°03'W | | | | | | | | | | | | | | |
| 1800 | 0°49'S | 92°04'W | | | | | | | | | | | | | | |
| 1900 | 0°58'S | 92°04'W | | | | | | | | | | | | | | |
| 2000 | | | | | | | | | | | | | | | | |
| 2100 | | | | | | | | | | | | | | | | |
| 2200 | | | | | | | | | | | | | | | | |
| 2300 | | | | | | | | | | | | | | | | |
| 2400 | | | | | | | | | | | | | | | | |

REMARKS:

ALL TIMES LOCAL (WHISKEY); WIND DIR. IN WHOLE DEGREES; WIND SPEED IN KNOTS; TEMPERATURES IN FAHRENHEIT; VISIBILITY IN NAUTICAL MILES;
WAVES IN WHOLE DEGREES; WAVE PERIOD IN SECONDS; WAVE HEIGHT IN WHOLE FEET; SEA LEVEL PRESSURE IN MILLIBARS

SI-MNH-955b
Rev. 4-9-64

DATE 21 Sept 1967

SR 0559 20°4'S 92°07'W

SS 1809 30°31'S 92°09'W

Miles - 87

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA CLIMATOLOGICAL DATA

| TIME | LAT | LONG | PRES | WEA | VIS | SLP | DRY B | DEW PT | HUM % | TL SKY | OPA SKY | WAVES | SEA TEMP | WIND S | WIND D | SHIP COURSE/SPD. |
|------|---------|---------|------|-----|-----|-----|-------|--------|-------|--------|---------|-------|----------|--------|--------|------------------|
| 0100 | | | | | | | | | | | | | | | | |
| 0200 | | | | | | | | | | | | | | | | |
| 0300 | | | | | | | | | | | | | | | | |
| 0400 | 20 04'S | 92 07'W | | | | | | | | | | | | | | |
| 0500 | ↓ | ↓ | | | | | | | | | | | | | | |
| 0600 | | | | | | | | | | | | | | | | |
| 0700 | 20 15'S | 92 08'W | | | | | | | | | | | | | | |
| 0800 | 20 25'S | 92 09'W | | | | | | | | | | | | | | |
| 0900 | 20 34'S | 92 09'W | | | | | | | | | | | | | | |
| 1000 | 20 44'S | 92 10'W | | | | | | | | | | | | | | |
| 1100 | 20 50'S | 92 10'W | | | | | | | | | | | | | | |
| 1200 | 20 50'S | 92 10'W | | | | | | | | | | | | | | |
| 1300 | 20 59'S | 92 10'W | | | | | | | | | | | | | | |
| 1400 | 30 09'S | 92 10'W | | | | | | | | | | | | | | |
| 1500 | 30 17'S | 92 09'W | | | | | | | | | | | | | | |
| 1600 | 30 27'S | 92 09'W | | | | | | | | | | | | | | |
| 1700 | 30 27'S | 92 09'W | | | | | | | | | | | | | | |
| 1800 | 30 30'S | 92 09'W | | | | | | | | | | | | | | |
| 1900 | 30 40'S | 92 09'W | | | | | | | | | | | | | | |
| 2000 | | | | | | | | | | | | | | | | |
| 2100 | | | | | | | | | | | | | | | | |
| 2200 | | | | | | | | | | | | | | | | |
| 2300 | | | | | | | | | | | | | | | | |
| 2400 | | | | | | | | | | | | | | | | |

REMARKS:

ALL TIMES LOCAL (WHISKEY); WIND DIR. IN WHOLE DEGREES; WIND SPEED IN KNOTS; TEMPERATURES IN FAHRENHEIT; VISIBILITY IN NAUTICAL MILES;
WAVES IN WHOLE DEGREES; WAVE PERIOD IN SECONDS; WAVE HEIGHT IN WHOLE FEET; SEA LEVEL PRESSURE IN MILLIBARS

g-31
34
65

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Rev. 4-9-64

40

DATE 22 Sept 1967

✓
SR - 0630 ^{4047'N} 92006'W

SS - 1630 ^{5057'N} 91° 38'W

Miler - 80

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA CLIMATOLOGICAL DATA

| TIME | LAT | LONG | PRES | WEA | VIS | SLP | DRY B | DEW PT | HUM % | TL SKY | OPA SKY | WAVES | SEA TEMP | WIND S | WIND D | SHIP COURSE/SPD. |
|------|--------|---------|------|-----|-----|-----|-------|--------|-------|--------|---------|-------|----------|--------|--------|------------------|
| 0100 | | | | | | | | | | | | | | | | |
| 0200 | | | | | | | | | | | | | | | | |
| 0300 | | | | | | | | | | | | | | | | |
| 0400 | 4046'S | 92006'W | | | | | | | | | | | | | | |
| 0500 | ↓ | ↓ | | | | | | | | | | | | | | |
| 0600 | ↓ | ↓ | | | | | | | | | | | | | | |
| 0700 | 4057'S | 92006'W | | | | | | | | | | | | | | |
| 0800 | 5003'S | 92006'W | | | | | | | | | | | | | | |
| 0900 | 5010'S | 92006'W | | | | | | | | | | | | | | |
| 1000 | 5027'S | 92005'W | | | | | | | | | | | | | | |
| 1100 | 5027'S | 92005'W | | | | | | | | | | | | | | |
| 1200 | 5027'S | 92005'W | | | | | | | | | | | | | | |
| 1300 | 5024'S | 92002'W | | | | | | | | | | | | | | |
| 1400 | 5016'S | 92055'W | | | | | | | | | | | | | | |
| 1500 | 5008'S | 92048'W | | | | | | | | | | | | | | |
| 1600 | 5005'S | 92041'W | | | | | | | | | | | | | | |
| 1700 | 5053'S | 92024'W | | | | | | | | | | | | | | |
| 1800 | 4045'S | 92027'W | | | | | | | | | | | | | | |
| 1900 | | | | | | | | | | | | | | | | |
| 2000 | 4030'S | 92013'W | | | | | | | | | | | | | | |
| 2100 | | | | | | | | | | | | | | | | |
| 2200 | | | | | | | | | | | | | | | | |
| 2300 | | | | | | | | | | | | | | | | |
| 2400 | | | | | | | | | | | | | | | | |

REMARKS:

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Rev. 4-9-64

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA CLIMATOLOGICAL DATA

DATE 23 Sept 1967

| TIME | LAT | LONG | PRES WEA | VIS | SLP | DRY B | DEW PT | HUM % | TL SKY | OPA SKY | WAVES | SEA TEMP | WIND S | WIND D | SHIP COURSE/SPD. |
|------|----------|---------|----------|-----|-----|-------|--------|-------|--------|---------|-------|----------|--------|--------|------------------|
| 0100 | | | | | | | | | | | | | | | |
| 0200 | | | | | | | | | | | | | | | |
| 0300 | | | | | | | | | | | | | | | |
| 0400 | 3°28'S | 90°17'W | | | | | | | | | | | | | |
| 0500 | 21'S | 90°10'W | | | | | | | | | | | | | |
| 0600 | 3°14'S | 90°03'W | | | | | | | | | | | | | |
| 0700 | 3°06'S | 89°55'W | | | | | | | | | | | | | |
| 0800 | 2°58'S | 89°48'W | | | | | | | | | | | | | |
| 0900 | 2°50.5'S | 89°41'W | | | | | | | | | | | | | |
| 1000 | 2°43'S | 89°33'W | | | | | | | | | | | | | |
| 1100 | 2°35'S | 89°26'W | | | | | | | | | | | | | |
| 1200 | 2°27'S | 89°19'W | | | | | | | | | | | | | |
| 1300 | 2°18'S | 89°12'W | | | | | | | | | | | | | |
| 1400 | 2°10'S | 89°05'W | | | | | | | | | | | | | |
| 1500 | 2°02'S | 88°58'W | | | | | | | | | | | | | |
| 1600 | 1°53'S | 88°50'W | | | | | | | | | | | | | |
| 1700 | 1°45.5'S | 88°43'W | | | | | | | | | | | | | |
| 1800 | 1°38'S | 88°36'W | | | | | | | | | | | | | |
| 1900 | | | | | | | | | | | | | | | |
| 2000 | | | | | | | | | | | | | | | |
| 2100 | | | | | | | | | | | | | | | |
| 2200 | | | | | | | | | | | | | | | |
| 2300 | | | | | | | | | | | | | | | |
| 2400 | | | | | | | | | | | | | | | |

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SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA CLIMATOLOGICAL DATA

DATE 24 Sept 1967

| TIME | LAT | LONG | PRES | WEA | VIS | SLP | DRY B | DEW PT | HUM % | TL SKY | OPA SKY | WAVES | SEA TEMP | WIND S | WIND D | SHIP COURSE/SPD. |
|------|---------|-----------|------|-----|-----|-----|-------|--------|-------|--------|---------|-------|----------|--------|--------|------------------|
| 0100 | | | | | | | | | | | | | | | | |
| 0200 | | | | | | | | | | | | | | | | |
| 0300 | | | | | | | | | | | | | | | | |
| 0400 | 00 25'S | 87 31'W | | | | | | | | | | | | | | |
| 0500 | 00 19'S | 87 33'W | | | | | | | | | | | | | | |
| 0600 | 00 09'S | 87 46'W | | | | | | | | | | | | | | |
| 0700 | 00 01'S | 87 09'W | | | | | | | | | | | | | | |
| 0800 | 00 07'N | 87 02'W | | | | | | | | | | | | | | |
| 0900 | 00 15'N | 86 55'W | | | | | | | | | | | | | | |
| 1000 | 00 23'N | 86 48'W | | | | | | | | | | | | | | |
| 1100 | 00 31'N | 86 40.5'W | | | | | | | | | | | | | | |
| 1200 | 00 39'N | 86 33'W | | | | | | | | | | | | | | |
| 1300 | 00 47'N | 86 26'W | | | | | | | | | | | | | | |
| 1400 | 00 53'N | 86 19'W | | | | | | | | | | | | | | |
| 1500 | 10 03'N | 86 10'W | | | | | | | | | | | | | | |
| 1600 | 10 11'N | 86 03'W | | | | | | | | | | | | | | |
| 1700 | 10 18'N | 85 55'W | | | | | | | | | | | | | | |
| 1800 | 10 25'N | 85 47'W | | | | | | | | | | | | | | |
| 1900 | 10 32'N | 85 39'W | | | | | | | | | | | | | | |
| 2000 | | | | | | | | | | | | | | | | |
| 2100 | | | | | | | | | | | | | | | | |
| 2200 | | | | | | | | | | | | | | | | |
| 2300 | | | | | | | | | | | | | | | | |
| 2400 | | | | | | | | | | | | | | | | |

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30
40
10

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SMITHSONIAN INSTITUTION
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DATE 25 Sept 1967

| TIME | LAT | LONG | PRES | WEA | VIS | SLP | DRY B | DEW PT | HUM % | TL SKY | OPA SKY | WAVES | SEA TEMP | WIND S | WIND D | SHIP COURSE/SPD. |
|------|-------------|--------------|------|-----|-----|-----|-------|--------|-------|--------|---------|-------|----------|--------|--------|------------------|
| 0100 | | | | | | | | | | | | | | | | |
| 0200 | | | | | | | | | | | | | | | | |
| 0300 | | | | | | | | | | | | | | | | |
| 0400 | 20 41' N | 84 03 0' W | | | | | | | | | | | | | | |
| 0500 | 20 49' N | 84 02 25' W | | | | | | | | | | | | | | |
| 0600 | 20 57' N | 84 01 3' W | | | | | | | | | | | | | | |
| 0700 | 3 04 3' N | 84 00 7' W | | | | | | | | | | | | | | |
| 0800 | 3 01 2' N | 83 59 6' W | | | | | | | | | | | | | | |
| 0900 | 3 02 6' N | 83 58 1' W | | | | | | | | | | | | | | |
| 1000 | 3 02 8' N | 83 57 3' W | | | | | | | | | | | | | | |
| 1100 | 3 03 5' N | 83 56 3' W | | | | | | | | | | | | | | |
| 1200 | 3 04 3' N | 83 55 7' W | | | | | | | | | | | | | | |
| 1300 | 3 05 0' N | 83 54 3' W | | | | | | | | | | | | | | |
| 1400 | 3 05 7' N | 83 53 1' W | | | | | | | | | | | | | | |
| 1500 | 4 00 3' N | 83 04' W | | | | | | | | | | | | | | |
| 1600 | 4 01 0' N | 83 05 6' W | | | | | | | | | | | | | | |
| 1700 | 4 01 6 5' N | 83 04 8 5' W | | | | | | | | | | | | | | |
| 1800 | 4 02 3' N | 83 04 1' W | | | | | | | | | | | | | | |
| 1900 | 4 03 0' N | 83 03 4' W | | | | | | | | | | | | | | |
| 2000 | | | | | | | | | | | | | | | | |
| 2100 | | | | | | | | | | | | | | | | |
| 2200 | | | | | | | | | | | | | | | | |
| 2300 | | | | | | | | | | | | | | | | |
| 2400 | | | | | | | | | | | | | | | | |

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1
36
64
100
49
49
98

64
34

48
64
112

49
49
76

32
10
32
73
4
3

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SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA CLIMATOLOGICAL DATA

DATE 26 Sept 1967

| TIME | LAT | LONG | PRES WEA | VIS | SLP | DRY B | DEW PT | HUM % | TL SKY | OPA SKY | WAVES | SEA TEMP | WIND S | WIND D | SHIP COURSE/SPD. |
|------|------------|-------------|----------|-----|-----|-------|--------|-------|--------|---------|-------|----------|--------|--------|------------------|
| 0100 | | | | | | | | | | | | | | | |
| 0200 | | | | | | | | | | | | | | | |
| 0300 | | | | | | | | | | | | | | | |
| 0400 | | | | | | | | | | | | | | | |
| 0500 | | | | | | | | | | | | | | | |
| 0600 | 5° 40' N | 81° 09' W | | | | | | | | | | | | | |
| 0700 | 5° 46.5' N | 81° 01' W | | | | | | | | | | | | | |
| 0800 | 5° 53' N | 80° 53' W | | | | | | | | | | | | | |
| 0900 | 5° 59' N | 80° 45.5' W | | | | | | | | | | | | | |
| 1000 | 6° 05' N | 80° 38' W | | | | | | | | | | | | | |
| 1100 | 6° 11.5' N | 80° 30' W | | | | | | | | | | | | | |
| 1200 | 6° 18' N | 80° 22' W | | | | | | | | | | | | | |
| 1300 | 6° 27' N | 80° 18.5' W | | | | | | | | | | | | | |
| 1400 | 6° 36' N | 80° 15' W | | | | | | | | | | | | | |
| 1500 | 6° 45' N | 80° 13' W | | | | | | | | | | | | | |
| 1600 | 6° 54' N | 80° 11' W | | | | | | | | | | | | | |
| 1700 | 7° 03' N | 80° 08.5' W | | | | | | | | | | | | | |
| 1800 | 7° 12' N | 80° 06' W | | | | | | | | | | | | | |
| 1900 | | | | | | | | | | | | | | | |
| 2000 | | | | | | | | | | | | | | | |
| 2100 | | | | | | | | | | | | | | | |
| 2200 | | | | | | | | | | | | | | | |
| 2300 | | | | | | | | | | | | | | | |
| 2400 | | | | | | | | | | | | | | | |

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4 9
81 85
81
18 / 400
36
64
94

30
20
30

3 2 1 0

90 90-180 180 90 90-0

7 6 5

242-7368